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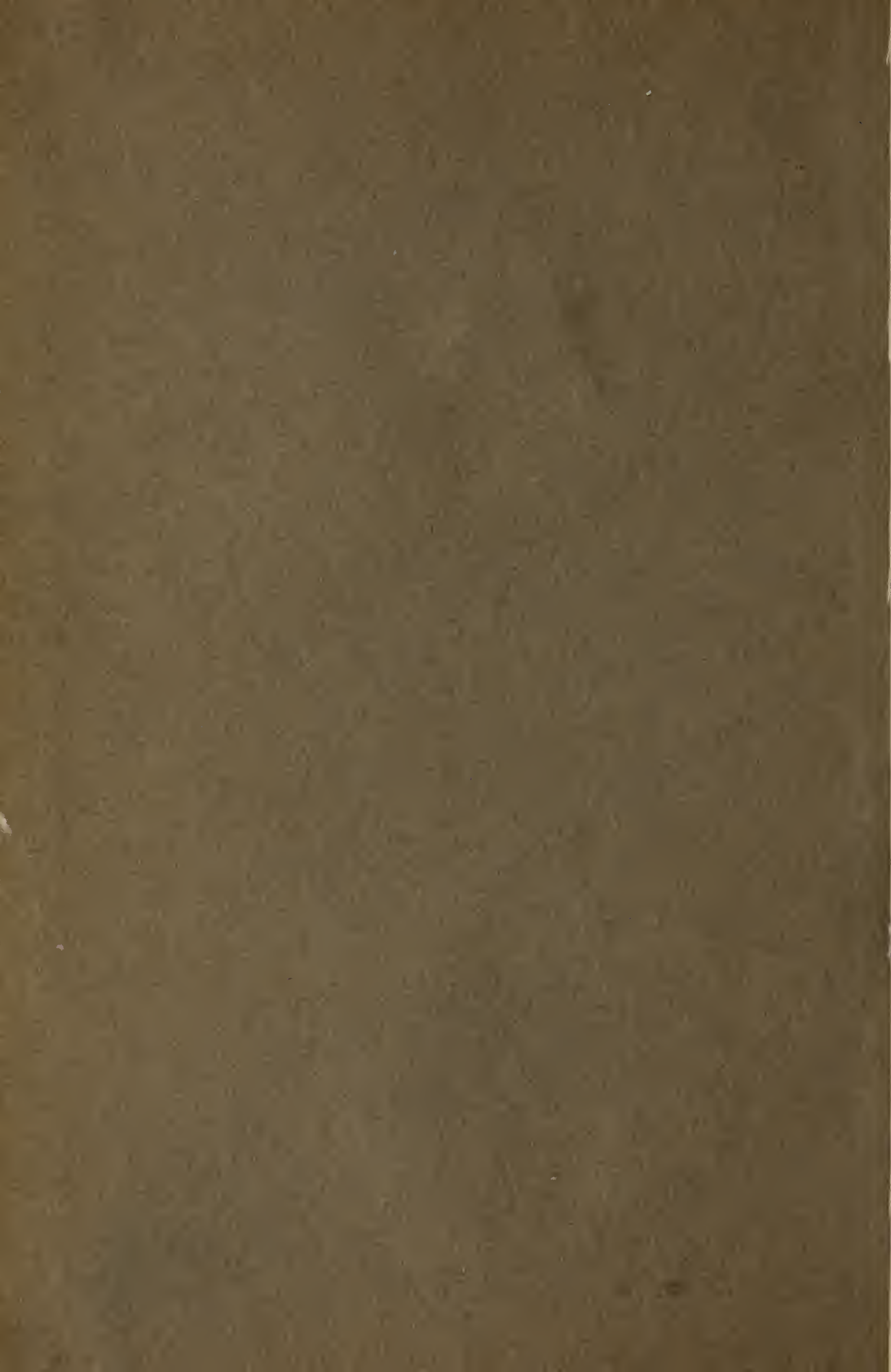
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LONG ISLAND MEDICAL JOURNAL

EDITED BY
HENRY GOODWIN WEBSTER, A. B., M. D., F. A. C. P.
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NO. 1

CLIMATE IN RELATION TO THE TREATMENT OF TUBERCULOSIS.*

Edwin P. Kolb, M. D.

Supt. Suffolk Sanatorium, Holtsville, N. Y.

SINCE at different times in the past 20 centuries various writers have attributed specific virtues to certain climates or locations, a brief review of the subject of climate in relation to the treatment of Tuberculosis is pertinent.

The importance of climatic treatment for tuberculosis, a belief of the ancients, has survived the advent of scientific medicine. The value of certain climates in the treatment of this disease was emphasised by the ancient Greek and Roman, as well as the Medieval Arabic Physicians. Hippocrates advocated a sojourn in the mountains. Aretaeus recommended sailing and the air of the sea shore. Celsus advised a trip to Egypt. In more recent times, Laennec advocated a residence on the sea coast. He found that the air of the mountains did not agree with many of his patients and believed that those with whom it did agree had only a small number of tubercles in the lungs. He said, "A residence by the sea side particularly in mild or temperate climates, is unquestionably the situation in which most consumptive patients have been known to recover. Indeed, I am convinced that we have no better means to oppose to this disease, than a sea voyage and residence on the sea coast in a mild climate."¹

Most of the English and Continental Physicians of his time, were sending their tuberculous patients to the seacoast.

For a brief period in the first half of the 19th century, treatment in caves was advocated and it is said that hundreds of tuberculous individuals went to the Mammoth cave in Kentucky, with disastrous results. It can be seen that although climate was considered of greatest importance there was a difference of opinion as to the best climate for the consumptive.

It has been only within recent years that the value of climate as a therapeutic measure in the treatment of tuberculosis has been relegated to its proper place, one of minor importance.

* Read before the Associated Physicians of Long Island Garden City, N. Y., October 23rd, 1920.

Osler² says in speaking of climatic treatment, "This after all is only a modification of the open air method. The requirements of a suitable climate are a pure atmosphere, an equable temperature not subject to rapid variations and a maximum amount of sunshine. Conditions which should influence the choice of a locality are good accommodations, good food, and the patient be under the care of a competent physician. When the disease is limited to an apex in a man of fairly good personal and family history, the chances are that he may fight a winning battle, if he lives in any climate, whether high, dry and cold, or low, moist and warm. With bilateral disease and cavity formation there is but little hope of permanent cure and mild or warm climates are preferable."

Lawrason Brown³ of Saranac says, "The value of certain climates has in recent years been called into question and to-day rests upon personal belief and experience. Much has been written and little proved. There is no specific climate for pulmonary tuberculosis and climate alone is of little avail. Without doubt many of the effects attributed to climate can be ascribed to change of climate. Change from a "good" to a "bad" climate often produces excellent results. In general patients in acute stages should be kept at home. Robust patients in subacute stages may be sent to any climate. Patients with advanced fibroid disease and delicate patients with subacute or chronic ulcerative disease need a climate of protection, neither too cold nor too high, but those in early stages will do well in almost any climate."

Fishberg⁴ believes that change of environment is important irrespective of the kind of climate. He emphasizes the necessity of considering the economic aspects.

Dr. Flick⁵ of the Phipps Institute, Philadelphia, says, "Climate of itself as a curative factor in tuberculosis has never been defined in so much as it eludes analysis. In the abstract it has been held of value but all that it has been possible to say for it is that people have gone away and gotten well. Many who stay at home recover, as well as many who go away. A well to do go-away recovers and attracts attention; a poor stay-at-home recovers and is unnoticed, or if noticed, is said not to have had tuberculosis. Spontaneous recoveries take place everywhere. We have no evidence that more take place in one climate than another. In climatic resorts tuberculous subjects congregate, attract attention and are under observation; when a case recovers it is noted, but when a case goes home to die, or is sent home in a coffin, no notice is taken of the matter. In home climates things are reversed. Tuberculous subjects are scattered through the community and attract very little attention except when they die. Recoveries are never noted but death always is. We have statistics of how many die but not of how many get well."

Dr. J. W. Flynn⁶ of Prescott, Arizona, in an article on the subject of climate in a recent number of the *American Review of tuberculosis*, concludes that there is no specific climate for the treatment of tuberculosis. He says, "As between care (that is fresh air, good food, rest and competent medical attention) and climate, the latter must always continue to be a secondary consideration. In the least favorable climate, good care, provided the surroundings be the best obtainable, will produce much better results than the best known climate without this care. If the patient must choose

between the two he should take the care and let the climate go; but if he be so fortunate as to be able to have them both, his prospects of recovery are certainly brighter than they would be if he were compelled to depend on one alone."

Pottenger⁷ in his chapter on climate says, "Formerly climate was thought to be the chief factor in the treatment of tuberculosis. To-day, however, we know that the most important factor in the treatment of tuberculosis is intelligent guidance. The great faith in climate which is still held by many is a remnant of the "let alone" policy of treating tuberculosis, rather than a carefully established fact." After going into details as to why the location of his own private sanatorium at Monrovia, Cal., is so desirable, he states, "While the discomfort and monotony to the patients would probably be greater in less favorable localities, yet the result would not differ as much as might be supposed."

E. S. Bullock⁸ in a paper read before the National Tuberculosis Association in 1906 gives detailed reports of 148 cases to prove the value of the climate of Silver City, New Mexico, in the treatment of tuberculosis. He did not offer any proof that the results would not have been as good at some other locality. He makes the very significant explanation that inadequate finances or unfavorable temperment operated against the patient in 53.2% of the cases. He concludes his paper with the following amazing statement, "We should therefore have sent to our western institutions every case in which the patient may be expediently sent far from home." Four years later he wrote, "I must emphatically maintain that no consumptive should ever be sent away, if it is not certain that he will have as good care and management in the distant climate as he could obtain near home."⁹

A comparison of the statistics from institutions located in different sections of the country will show very slight differences in the results of treatment in the three stages of the disease. Any difference can be explained by the personal equation in classifying results. Of course those institutions (and there are many) that endeavor to get the patient home before the end comes will necessarily have fewer deaths.

It must be remembered that the results obtained in institutions located in well known tuberculosis resorts is no index of what occurs in the hundreds of patients who flock to the hotels and boarding houses in those localities. Unfortunately statistics are not available for this large class of patients. If they were, undoubtedly the results, or *rather, the lack of results* of climatic treatment would be astounding. In spite of the fact that most authorities, many of them located in tuberculosis resorts, state that there is no specific climate for the treatment of this disease, many physicians and most laymen, believe climatic treatment is most necessary. The exaggerated importance of climate and the necessity of sending their patients to a distant point and a different climate is so firmly fixed in the minds of some physicians, that they seem to think they have given all the advice necessary, when they tell the patient to go to Saranac, Arizona, Colorado, or some other well known (often well advertised) tuberculosis resort, or the almost criminal general advice to "go West and rough it." The patients, many of them ignorant of the salient points in treatment, with the abnormal optimism which seems to be peculiar to the disease follow the advice and depending upon some magic

virtue in the air to make them well, neglect the important principles of treatment.

Often patients so acutely ill that absolute typhoid rest is indicated are sent hundreds of miles from home with the result that the hardships of the journey means the final chapter of their life history. A characteristic often seen in tuberculous individuals particularly those who are not doing well, is the idea that some climate or location other than where they happen to be is the ideal place for them and if they could only get there, they would soon be well. The result is that if they have sufficient funds (and sometimes when they have not) they pursue the elusive rainbow from one part of the country to the other always expecting that the pot of gold, good health, will be found at the next place.

The new arrival at any well known tuberculosis resort is always told of the wonderful effects of the air and the marvelous case of the patient who after being given up was brought in on a stretcher and in 6 months returned home absolutely cured. He is not told of the hundreds of ill patients, who after a variable length of stay returned home in a pine box. It is true that many wonderful so called cures occur at these places. They also occur elsewhere.

I certainly do not wish to be interpreted as minimizing the value of certain localities for the treatment of tuberculosis, or stating that patients should not be sent to a different climate. Undoubtedly a decided change of climate, location and environment is of great value in many cases and some patients will do much better in one place than another. I often so advise patients, but they are instructed to enter an institution if possible, and if not, to place themselves under the care of a competent specialist and follow his instructions absolutely. It is a great mistake to send some patients to the mountains to take the cure on their own responsibility in a hotel or boarding house. Frequently patients sufficiently ill to be in bed will be wading and fly fishing the brooks, climbing mountains or engaging in other forms of exercise harmful to them. These patients would be much better off at home.

The superiority of one locality over another as a place for the treatment of tuberculosis is individual rather than general, and the fact that some patients do much better in a particular climate or locality is no criterion that a majority of the tuberculous will do equally well there.

Climate of Long Island. Ross¹⁰ made a study of this question covering a consecutive period of 3,650 days from 1890 to 1900 at Brentwood. The mean Summer temperature is 70°, the mean Winter temperature 30°, and the mean yearly temperature 51.8°. The mean yearly temperature of the entire State 45°, of New York City 52°, Atlantic City 52.7° and Nantucket 49.5°. Annual range of Temperature is 39°, while for the whole country it is from 64°-77°. The temperature in Summer is 5° cooler than New York City and in Winter 16° warmer than the rest of New York State. The average yearly humidity is 72.75°, only 3° greater than San Diego, Cal. Including all days on which the sun shines all day or a part of the day sufficient to permit exercise in the open air, there is an average of 300 days, 40 more than Atlantic City, 104 more than Nantucket and only 12 less than Denver.

The soil is sandy and permeable in the centre of the island, giving good drainage, and the water is pure. It will be seen that Long Island possesses the essentials for open air treatment.

Results of Treatment at the Suffolk Sanatorium. 26 patients who were incipient cases on admission have been discharged from the Sanatorium. The results on discharge were as follows:

Arrested	Quiescent	Improved	Unimproved	Deaths
22	1	1	1	1*

Forty-nine patients whose condition was moderately advanced on admission have been discharged with the following results on discharge:

Arrested	Quiescent	Improved	Unimproved	Deaths
19	18	5	6	1

Although the results were unfavorable in the majority of far advanced cases admitted, four patients with complications which placed them in the far advanced class were discharged as arrested and 25 far advanced cases were discharged with the disease quiescent. Of the Incipient cases discharged all are living and well except one who died of Influenza-Pneumonia. Six have been away from the Sanatorium over 3 years, 5 over 2 years; 7 over 1 year and 7 less than a year.

Of the moderately advanced cases discharged 48, all are living and working except one who succumbed to tuberculosis about 3 years after discharge. 18 of these patients have been discharged over 3 years; 10 over 2 years; 10 over 1 year and 10 less than 1 year.

Of the far advanced cases discharged as arrested all are living and well. Of the 25 far advanced cases discharged as quiescent, one has since died of Influenza-Pneumonia and 3 of tuberculosis.

Forty-one cases of all stages were discharged with the disease arrested, all of whom are living and well except one whose death was due to Influenza.

Of 44 cases all stages, discharged as quiescent, 5 are dead, 4 from tuberculosis, one from Influenza. Of the four dying of tuberculosis, 1 was mod. advanced and 3 far advanced on admission.

These results will compare favorably with those of any institutions in the country no matter where located.

It is my opinion that the disease has a greater tendency to run a chronic course on Long Island than in the mountains. The histories, physical findings and subsequent course of the disease in a large number of patients leads me to believe this to be true. If this is so, it is a rather desirable thing. Many far advanced chronic cases enjoy fair health and are able to do a certain amount of work for years. The ages of the patients possibly indicate this also. 43% of the patients admitted were over 35 years of age; 32% over 40; 13% over 50 and 4% over 60. One patient was over 80 years of age.

In conclusion I wish to emphasize the following points:

There is no specific climate for the treatment of tuberculosis.

Although many patients are greatly improved by a change of climate, the improvement can be attributed to the effect of the change, rather than to the virtues of the particular climate.

* This patient died of Influenza-Pneumonia after he had received his final examination for discharge as an arrested case.

Proper care, which means proper rest, good food and open air, and competent medical supervision is of much greater importance than climate. Competent medical supervision includes proper medical and surgical treatment for symptoms and complications. It is probable that to these four well known and thoroughly proven essentials in the treatment of tuberculosis should be added heliotherapy, sun light, either natural or artificial.

No patients acutely ill should be sent a long distance.

No patient with insufficient funds, irrespective of his physical condition, should be sent to a tuberculosis resort, unless he can enter an institution. A patient with sufficient funds should not be sent away unless he can and will place himself under proper medical supervision and follow instructions absolutely.

A change is indicated in a chronic case, which has reached the point where his condition remains stationary after a sufficient length of time, providing he can receive equally good care somewhere else.

Institutional treatment is preferable to "taking the cure" in a hotel or boarding house.

With proper treatment the outcome in any particular case of tuberculosis depends largely upon that very indefinite individual factor, namely, allergy or resistance. Not all patients are equally resistant to the disease or can build up sufficient resistance even under proper treatment. Unfortunately we have no method of accurately estimating the individual resistance and must depend upon the subsequent progress of the patient to learn whether or not he possesses sufficient resistance to overcome the disease. This makes prognosis uncertain.

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AN ADDRESS ON PHTHISIS PULMONALIS.*

Albert C. Geyser, M. D.

New York City.

MR. President, ladies and gentlemen:
The subject of phthisis pulmonalis is such a large one and may be viewed from so many different angles that it will be possible for me to merely call your attention to some of the more important and frequently misinterpreted phases of this disease. Neither will it be possible for me to introduce anything new. All that I shall say is well-known to you, it is old. I will, however, try to direct your attention to view this disease from angles which may have escaped your attention heretofore. In fact, some of my statements may seem almost heretic. Whether my conception of this disease is right or wrong, I will leave to your judgment. I myself am guided entirely by the practical results obtained from therapeutic measures in harmony with my viewpoints.

CAUSE

Two essential factors are necessary for the existence of this disease, to-wit: a suitable soil (lowered resistance), and the specific seed (the germ). A suitable soil is furnished by anything which lowers the physical resistance of the individual.

The specific germ is always with us. In 90% of all human beings the germ is transmitted during intrauterine life. The other 10% are promptly infected during their first few weeks of independent existence.

This disease is a concomitant of civilization. Only a few barbaric and semicivilized people are still free from it. Such individuals are virgin soil and become rapidly infected after contact with the civilized. The average life of the Eskimo is 2½ years after an attempt at becoming civilized. *In civilized communities the disease is seldom or never propagated from the sick to the healthy.* The apparently healthy are already tuberculized. They have either been infected during life in utero or immediately thereafter; they have recovered and are more or less immune; they harbor within their systems the germs. *Everybody is a potential consumptive.* Since the germs do not thrive and multiply, they have not the disease in fact, but are latent cases. A very few may become entirely free from the germs, but are nevertheless tuberculized. For confirmation I have only to point to the fact that neither doctors, nurses nor attendants at sanatoria show any special percentage of infection. There are but few cases on record where the husband or the wife have infected each other. In families with consumptive children, only one or two showed the disease, yet in all these cases there was unhindered contact day in and day out.

BOVINE TUBERCULOSIS

The acid fast bacillus found in cattle does not cause phthisis in the human. If the fresh milk, which may contain these bacilli did cause the disease in the human, then the *farmer's children would be the first ones to suffer*, because they drink the fresh, warm milk. The

*Delivered before the meeting of the "American Association for Medico-Physical Research" October 7, 8, 9, 1920, Chicago, Ill.

dairy workers also would show a high percentage of infection owing to their close and constant exposure. The children and individuals of the city, far removed from the cattle, living on pasteurized and sterilized milk fall easy victims to the disease.

It is more likely that the human phthisis patient by his expectoration infects the cattle. After the germ has passed through an existence in cattle, by attenuation it may have become weakened in the same manner as a germ of small pox.

The physiological or natural method of cure:

Up to 1882 it was well known that persons who died from what was called phthisis or consumption showed after autopsy that their lungs were studded with small granules. These granules or tubercles were an ever present accompaniment of this disease. It was thought that they were either the result of or at least an important part in the disease process; hence the term tubercle disease or tuberculosis. During the year of 1882 Prof. Koch of Berlin discovered that every one of these tubercles contained one or more acid fast bacilli; that these bacilli were surrounded first by a circular layer of giant cells, then by a layer of ovoid cells and lastly by a third layer of round or leucocyte cells. Enmeshed within these last cells was usually some lime salts. In a completely formed tubercle there was not discovered a single trace of blood vessels, showing that the centrally located bacilli were by this means most effectually shut off from all outward communication or escape. The entire tubercle, however, might be expelled from the lungs the same as any other foreign body or it might remain in situ as a bullet after having become encapsulated. *The fibrous capsule surrounding a bullet or the formation of pus cells around a splinter are both analogous processes to the formation of the tubercles around the bacilli in the lung tissue.*

These three processes are physiological and not pathological. *Tubercle formation therefore is a conservative process; it is nature's method of making the otherwise injurious bacillus practically harmless.*

That such a process should not be interfered with is self-evident; on the contrary, it is our duty to assist Nature in her effort. All therapeutic measures not in harmony with natural laws, while they may appear highly scientific, are unphysiologic, therefore of questionable value.

The proof of the pudding lies in the eating:

For several centuries we have passed through tuberculosis crusades. In some countries they have taken on the appearance of actual persecutions of the unfortunates and the destruction of their belongings. During later years these crusades have donned the financial, political and educational garb. After all of the crusades, isolations, tuberculine injections, creosote inunction and inhalation, the percentage of stricken is about the same. The death rate has not changed and the building of sanatoria goes on. All this appears as proof positive that all of these measures have been tried and they have been found wanting.

The physiological treatment of phthisis:

Under no circumstances should a patient be subjected to treatment based upon the X-Ray findings. It is just as illogical to treat a clinically symptom free patient for consumption because the X-Ray shows lesions as it is to treat a patient simply because he has a four plus Wasserman. *Neither the X-Ray plate of the lungs nor the four plus Wasserman of the blood has any significance in the absence of clinical symptoms.* I desire to call your attention to a few very important points.

Do not treat the disease, but treat the patient. While this rule applies to all diseases and all patients, it is of especial value in consumption. Since every human being is more or less tuberculized and since only one seventh of the entire race dies of consumption, it follows that there must be all grades of conditions between the two extremes. Not only that, but the consumptive is ever hopeful of recovery and this psychic condition must be taken advantage of to the fullest degree.

The treatment in general may be divided into local and constitutional. It is to be understood that every local treatment produces a constitutional effect and every constitutional measure affects the local lesion.

GENERAL CONSTITUTIONAL THERAPY

Consumption is a wasting disease; it uses up tissue faster than the patient can produce it; rest is therefore of paramount importance. *To rest does not necessarily mean being in bed.* Whenever possible, and as a rule it is always possible, the patient should spend only the regular hours during the night in bed; at all other times he should be fully dressed, though he may spend his time in a hammock or reclining chair; whenever possible he should take some regular outdoor exercise from a mere fifteen minute walk to playing games. *Do not worry about the fever;* it will take care of itself, but more of this later.

OUT DOOR AIR—The best climate for a patient with this disease is the one where he can spend 24 hours of each day out of doors. It matters little where this climate is located. As a general proposition for those who can afford it, it is south in the winter and north in the summer. The whole secret of the outdoor treatment is to be found in the fact that every person, sick or well, is surrounded by a certain circular zone in which his own emanations are continuously given off. A consumptive gives off a certain odor, the re-inhalation of which is not conducive to his best interest. As long as such a person is confined to a room, so long is he obliged to undergo this re-inhalation process, but while he is outdoors the air currents are constantly removing these personal emanations and as a result he breathes fresh air instead of his own stale effluvia.

ALTITUDE—Some patients do well at the higher, others at the lower altitudes; some succumb at either. It is not always easy to decide just where certain patients should be sent, assuming that they are to be sent away from home at all. As a general proposition the physically strong and robust patient with a good chest expansion will do well in the higher altitudes, while the weak, shallow chested individual does better at the sea level. There is yet a third class of patients, those who can, but through force of habit never take a deep breath. Such a patient should be sent to a gradually increasing higher altitude, while those who are perfectly willing but cannot take a deep breath must live as near to the sea level as possible. Now these are arbitrary statements, but they are in perfect harmony with the laws of physiology. The barometric pressure at the sea level is 15 pounds to the square inch; the higher we ascend into the mountainous regions, the less is the air pressure. *The more rarified the air becomes, the greater must the effort at breathing be made.* For suitable cases such an effort becomes a lung gymnastic which must be of benefit to the individual. When, therefore, the all too common error is made of sending the weak, frail, small chested to the mountains, he not only fails to improve, but spends what little power he may possess in useless effort; he literally wears himself out trying to breath sufficient oxygen to maintain life. The

average patient recovers best at or near the same atmospheric and climatic conditions where he or his parents were born. Such conditions are natural to him; he does not have to acclimate himself.

DIET—Consumption is a disease in which either tissue metamorphosis is markedly increased or else there is some interference with tissue assimilation. It is a process of gradual wasting. Proteins are the foodstuffs that maintain body weight and repair tissue waste; they are therefore indicated. *Do not attempt merely to fatten a patient; a patient may gain in weight, yet suffer from consumption.* As a general proposition allow each patient to select his own food, especially those foods which the patient knows from actual experience to have agreed best with him. I would warn you against urging the use of raw eggs. Raw albumen is not only difficult to digest, but is apt to cause the patient to become "bilious." There is, on the contrary, not the least objection to the use of hard-boiled eggs, providing they are known to be reasonably fresh. *Pure, rich milk, or fresh cream and water is a valuable asset. Do not use Pasteurized nor sterilized milk if you can help it; such milk is lacking in vitamins.* Since the physiological process of forming tubercles requires lime salts, there is no better or more natural way of obtaining these, *than by having the patient take one or two ounces of clam or oyster juice once or twice per week.*

HYGIENE—No matter how well a room may be ventilated, it does not compare with outdoor air. Every consumptive must be taught how to breathe properly; they all breathe too shallow. Besides the usual bathing, a patient must take a hot bath at least every other day. The bath must produce free perspiration and be continued not less than 15 to 30 minutes. The hot bath, temp 107°F, is followed by a short cooling bath, temp. 80°F. This prepares the patient for a rub down or light massage just before retiring.

Whether there exists constipation or not, the rectal douche should be used at least on alternate days. Do not fear the "douching habit"—*there is no more harm in regularly douching the rectum than there is in regular mouth washings.*

LOCAL TREATMENT

The patient's own blood must be caused to contain all the elements necessary for a cure. When the hemoglobin percentage is below 80% the intravenous injection of cacodylate of iron is the only remedy indicated. Five c. c. are used once or twice per week until the blood improves. At the present time there is only one way in which the amount of blood can be increased through the lung tissue and that is by the use of diathermia. *It heats the entire pulmonary area through and through; it dilates the pulmonary capillary system, thereby causing diapedesis of the leucocytes. The fixed cells respond as a result of this by the formation of giant cells around the bacilli; because of the capillary dilatation and the increased diapedesis, the wandering cells surround the giant cells, completing Nature's method by the creation of the all necessary tubercle formation. The earthy material from the clam and oyster-broth furnishes the necessary lime salt which is enmeshed in the third or outer layer of each tubercle to make assurance doubly sure, that the escape and future damage by the bacillus is made impossible.*

TEMPERATURE

Just a few words concerning the fever. The "irregular temperature" is a curative process; it is the result of reaction to something within the system. It is also evident that no matter how high this temperature

may be, it is inadequate in amount. It may be adequate for the time being, the temperature returning to normal or, from exhaustion, to sub-normal; there may be a new pouring out of that something which caused the first reaction, so that we have a continuous attempt on the part of the system to overcome or cure something. Taking this view of the rise and fall of the patient's temperature, are we warranted in doing anything that would interfere with this curative process? The answer is self evident. The patient's temperature should be taken upon awakening in the morning before getting up, again during the middle of the day and once more in the evening. These three temperatures are then added together and divided by three. If the quotient shows one or two degrees above normal, that patient is in a fair way to recovery; if, however, the patient's daily average temperature is below normal the prognosis is correspondingly bad. The temperature in consumption may be too low, it is never too high. This explains the efficacy of the diathermic phase of the high frequency current. One must however be certain that the voltage is low while the frequency and the amperage is correspondingly high.

TECHNIC

APPARATUS REQUIRED: The high frequency machine which I am about to demonstrate is of the Telatherm type. I have used this particular type for several years now. It has undergone many changes and I wish to express my appreciation of the cheerful assistance always offered by the Wappler Electric Company of New York City in carrying out the various modifications as time and experience dictated. To-day we have as a result a high frequency apparatus of *low voltage and unusually high frequency and a wide range of amperage*. Either the "Diathermia" machine, an earlier model or the "Telatherm," this latest type, answers our purpose perfectly.

The ambulatory patient who comes to your office should be treated at least every other day. A strip of flexible metal 4 inches by 8 is placed over the spinal column and connected with one of the binding posts. The other flexible tin 5 - 6 inches is placed across the chest. Before applying these electrodes, they are moistened with soap lather to insure better *contact with the bare skin*. The current is turned on until a Wappler hot wire meter shows a reading of 1500 milliamperes. The average time consumed is 30 -45 minutes. If no untoward symptoms occur after the second week the current is gradually increased to 2000 and later to 2500 milliamperes, the full output of the machine.

After the electrodes have been removed the parts are sponged with cold water and the patient advised to rest for one hour in the recumbent position.

All cases are divided into first, second and third stages. First stage cases should show 100% cures, that is, they should be converted from open cases into latent ones. During the second stage from 60 to 80% of closed cases may confidently be expected; while during the third stage only occasionally a case does become arrested, nearly all of them are made very comfortable and their lives prolonged by many years.

While this short review of so large subject is entirely inadequate I hope that the discussion will bring out many of the points necessarily omitted.

A FURTHER CONSIDERATION OF INTESTINAL FISTULA FOLLOWING APPENDICITIS.*

James C. Kennedy, M. D., F. A. C. S.

Brooklyn, New York.

AFTER investigating the statistical reports of several large Hospitals in Greater New York, I found the mortality in Appendicitis to be about 16%. This to me was alarming, and should not be. In justice to these Hospitals it is but fair to state that in the clean cases, so called early cases, interval cases, in fine cases, operation at the proper time, no deaths occurred. The cases in which mortality was found were principally those of general peritonitis, suppurative peritonitis, and moribund cases on admission. While this Hospital report investigation was made some little time back, my late experience in Hospital wards together with inquiries made among my Surgeon friends working in Hospitals, I am convinced that conditions have not materially changed to date, and this in the face of the fact, that the medical profession generally speaking, now have a very thorough knowledge of this disease. Wherefore this high mortality? Is it because a timid laity urges the attending physician to carry medical treatment to the danger point, or has the physician presuming on an 80 or 85% cure by medical means permitted his case to be led beyond bounds where even surgery is hopeless. Perhaps it is unfortunate that it is unethical for medical societies to make an appeal to the public through the press, so that they might lend aid in cutting down this death rate. Yet it seems more than unfortunate, that the lauding of the ice bag by a distinguished internist for the cure of appendicitis crept into the public press, following which in my own hospital practice recently at short intervals three patients were admitted who had part of their abdominal walls covering their appendices sloughed almost down to their peritoneums. This injurious publication, it is safe to say cost quite a few lives. The prolonged use of the ice bag should be condemned.

The foregoing is but a preface to the introduction of but one of the dangerous sequelae sometimes accompanying this familiar disease. Because Intestinal Fistula holds a prominent place among the many complications that beset acute appendicitis, it must be kept in mind.

It not only entails suffering but often invites disaster, and whether or no the surgeon's technique has anything to do with its production, its relief is, nevertheless, sought at his hands; his prerogative here, at least, is not disputed.

When local treatment does not avail in fecal fistula, the surgeon may encounter a formidable situation, the correction of which can tax his best surgical ingenuity.

A fact familiar to all Surgeons is that many intestinal fistulae particularly of the fecal variety, following acute appendicitis will, if an

*Read before the Brooklyn Medical Society Dec. 17, 1920.

attempt is made to keep them surgically clean, undergo a spontaneous cure.

The causes and varieties of intestinal fistula following appendicitis are very numerous. With due deference to the members of the medical profession holding to the contrary, we believe the cause most potent in the production of this particular class of fistula, is a neglect of that cardinal rule formulated years ago by surgeons of good judgment and broad experience: "Operate as soon after the diagnosis of acute infective appendicitis is made, if the disease is progressive." In our experience, early operation is not only wise conservatism and life saving, but the surest means of preventing intestinal fistula following the disease in question.

A cause very fruitful in the production of intestinal fistula is the abandoned appendix after the appendical abscess has been evacuated. Leaving the appendix in certain cases is imperative; particularly is this true when its outer surface makes up part of an abscess wall, which has not only limited inflammation but has acted as a barrier against general peritoneal infection. The removal of an appendix in such a case would simply establish drainage into the general peritoneal cavity; while, on the other hand, its perforated inner wall in all probability will not only create but keep up a fistula until its removal under more favorable circumstances. Furthermore, the taking out of such an appendix at such a time and place would not only involve considerable risk of infecting the tissues behind and about it, but we have more than once, when suppuration was abundant, found it impossible to locate the appendix. A case exemplifying to some extent the foregoing remarks came under my observation about three years ago. A boy, eight years of age, was brought into the wards of St. Catherine's Hospital in an exhausted condition after having suffered some two weeks with acute appendicitis. Why he was sent to the operating table at this late hour can only be conjectured. A large fluctuating tumor in the right iliac fossa was in evidence. One of my colleagues, on whose service he was, hurriedly evacuated a large abscess cavity which was filled with foul smelling pus with a distinct fecal odor. The finger, hastily swept around, disclosed the fact that the appendix was buried in and made up part of the abscess wall and should be dealt with later on. Four months following, the same patient came into my service for the cure of a fistula which discharged a small quantity of a purulent fluid occasionally tinged with fecal matter. A small probe could be passed through the fistulous opening and supposedly into the intestinal canal, and an indurated mass could be made out about the fistulous tract. After packing the tract with gauze an incision was made immediately above the tumor, which permitted an easy exploration of the condition from within. The caecum was found pressed up against a mass of tissue made up of the obliterated abscess cavity in which was buried the greater part of a very large appendix, with a perforation communicating with a sinus leading through and onto the external abdominal wall; the inner end of the fistulous tract opening through the base of the appendix into the caecum. This, perhaps, was as large an appendix as is usually seen.

I am convinced that the patient's life would have been seriously imperiled had the first operation been completed, because of the boy's bad physical condition and because its completion would necessitate breaking through the protecting wall of which the appendix formed an integral part, while at the second operation the micro-organisms were

contained only in the fistulous tract which, by means at our disposal, could be controlled, thereby permitting an aseptic operation to be done, and hence putting the chances of recovery almost beyond the possibility of failure.

Two factors in the production of intestinal fistula following appendicitis commonly noticed are, a gangrenous area of the caecum, which is either too large to close in at the time of the original operation, or which is not closed because of the danger of infection if extensive reparative work is attempted, and the forming of inflammatory necrosis at the seat of the appendical base, after the appendix has been removed. As an instance of the former, a strong, healthy man, policeman by occupation, came under my observation, with a large fecal fistula which had existed for a year and dated from an operation performed by an excellent and careful surgeon of this city. The surgeon, at operation, found the conditions as described above, and in due time urged operation for the closure of the fistula, but it was refused.

After I had detailed the difficulties that might be encountered in an attempt to close the fistula, the patient again declined, and the last I heard of him he was doing duty and still had his fistula,—a case of the latter type—that is, where inflammatory necrosis developed after the appendix had been removed is well shown by a case which I had in St. Mary's General Hospital some time ago.

A. J. W., age 35 years, married, born in this country; the condition of his appendix was such that it could only be tied off after free pus had escaped in large quantities. Four weeks later, when his recovery was thought to be about complete, he insisted on leaving the hospital; there was still remaining, however, a small sinus which was to be treated at home by his family physician. After three or four weeks, when summoned to his bedside, I was astonished to find a large fistula, evidently a perforated caecal wall through which immense quantities of fecal matter escaped. The man was septic and had developed a septic pneumonia, from which he died.

A rare case of intestinal fistula is one which originates spontaneously through the rupture of an appendical abscess on to the skin surface; such a case I found on my service at St. Catharine's Hospital four months ago. In the children's ward there was a small boy, much emaciated, about eleven years of age, suffering from a fecal fistula. The child had considerable temperature, pulse weak, was restless and the skin was excoriated about the fistulous opening. He had been sick some weeks at home, the parents refusing to have him operated on until they saw every other chance gone. He was in the hospital but a few hours when a tremendous abscess in his right inguinal region burst, discharging quantities of puss and fecal matter.

Our efforts to give the child strength being futile, and, as on the contrary, he grew steadily worse, we deemed it advisable to make some attempt to close the fistula. He had at the time of the operation and for some time previously, a temperature of 104 degrees, and was emaciated in the extreme from his inability to take food and from loss of sleep. After the fistulous tract had been packed with iodoform gauze an incision was made above the indurated mass, and with the tactile sense alone the caecum was found to be attached to the abdominal wall at about the appendical base. With the finger in the peritoneal cavity as a guide, the mass, consisting of scar tissue together with the fistulous tract, was dissected out.

The tumor on being separated from the caecal wall exposed an oblique opening on the convex border of the caecum about one half inch in length; this was closed, the wound in the gut healed quickly, but the union in the abdominal wall broke down at several points, possibly because of the child's poor resisting power. The patient made a slow but good recovery.

In this city an old lady some 80 years of age, a member of a religious order, suffered from a tumor in the right iliac fossa, accompanied by the usual signs of intra abdominal suppuration. She was informed that she had appendicitis and that in our opinion with or without an operation her condition was serious, particularly because of her age. She was pleased that the fates, through the instrumentality of a mortal disease, would soon enable her to reap a well-earned reward, which a service of 50 years in the sisterhood had justly entitled her. After two weeks of suffering there was a sudden cessation of pain with a marked diminution in the size of the mass, accompanied by the passage of pus per rectum in large quantities. This abscess would fill up and discharge through the rectum at intervals of about two months, greatly to the discomfort of the patient. She lived to my knowledge for a year following the first rupture, after which time she passed from my observation. This was evidently an evacuation of an abscess cavity into the intestinal canal. The type known as the internal intestinal fistula following an inoperable appendicitis.

Rupture of a diseased appendix into the free peritoneal cavity or of a rupture into an intestinal wall through appendical influences are almost too common to cite a case. However, in order to impress on the minds of any who might be skeptical as to the gravity of intestinal fistula following appendicitis, I will mention the following case: W. J., one of my medical neighbors referred a case to me at St. Mary's General Hospital, German, 24 years of age, of excellent habits, was sick with appendicitis for six days. On arriving at the hospital his face wore an anxious expression, his eyes were sunken, pulse almost imperceptible, temperature sub-normal, abdomen enormously distended and tympanic. The question immediately arose as to whether or no the man should be troubled with any kind of an incision. Humanity, however, took the place of mortality conservatism. The man's abdomen was opened under cocaine anesthesia, giving vent to quantities of pus, irrigation and drainage completed the work; the whole procedure requiring but a few minutes. He lived but a few hours. At autopsy the appendix was found to be ruptured close to its base, permitting the intestine to discharge its contents into the free peritoneal cavity.

In the female the havoc wrought by deep seated appendical abscesses frequently so damages the ovaries and tubes that their immediate removal is demanded. In one instance of this kind after breaking up of adhesions which bound a coil of intestine to the bladder wall, a distinct fistulous opening was exposed in the bladder and intestinal walls; both were closed, but the patient lost her life from the fury of a streptococcus infection.

Other varieties of intestinal fistula following appendicitis than those already mentioned, are the fistulae with multiple and cribriform openings and the blind fistula. Sonnenburg, cites a case of the latter occurring in his practice (not post-operative) in which communication had formed between the caecum and a pocket containing a fecal concretion. In this case the appendix had sloughed and left a perforation opening into the bowel at the base of the appendix. The re-active

peritonitis had been able to build a wall of adhesions dense enough to shut off the peritoneal cavity. These blind fistulae are rare and are nearly always a surprise to the surgeon when they do occur.

In a series of 257 of my own cases in which I have observed the matter of intestinal fistula, there were four that lasted more than three months and passed from my observation. One which I reported above died, being hopeless from the beginning, the other died without there being any attempt made to close the fistula. In 27 cases, fistula occurred but recovered spontaneously. In all these cases I was only able to tie off the appendix. In the remaining 224 cases we inverted the appendical stump according to the Daubarn method in which no fistula followed. During the period in which these 257 cases occurred I have operated on six cases for the cure of intestinal fistula; two of these were my own cases, four were cases on which other men had done the original operation. All did well except the case mentioned.

Recently I have had other cases, a few of which I will briefly mention, they are a type of some others that I am unable to report here.

Bessie A., age 14 years, Italian parentage, entered St. Catharine's Hospital December 29, 1919, with an acute abdomen, due to a ruptured and gangrenous appendix, with a history of having been sick four days at home. Previous and family history negative, Physical examination negative except foul breath, furred tongue, parched lips, abdomen enlarged, tender all over especially at McBurney point, Pulse 150, Temperature 104, Urine negative.

Blood examination, red cells 4,500,000, white cells 27,900, polynuclear 92%, mononuclear leucocytes 1%, lymphocytes large 2%, small 6%. Patient entered hospital 6:45 P. M., December 29, 1919, and was operated on 9:45 P. M. same date.

Ether anesthesia, incision over McBurney point, abdomen filled with foul smelling pus, appendix perforated, and gangrenous almost to its base. Appendix tied off because it could not be inverted, Mickulitz drain attached to the stump, and a soft fenestrated rubber tube passed out through the flank, wound closed in the usual way, time of operation 15 minutes. The patient to our surprise did not die, but in due time did develop a fecal fistula. After a stormy three months, March 10, 1920 an attempt was made to close the fistula. Caecum was adherent to the abdominal wall, which was freed with difficulty, when a long fistulous opening in its upper wall of the caecum was freshened and closed with number eight chromic gut, followed by lamberts sutures of fine pagenstecher linen some packing about a Mickulitz drain completed the operation, time of operation 40 minutes. The patient's resistance being extremely poor, after some days the closed caecal fistula again broke down, after another stormy few weeks on April 8, 1920, the final effort was made to close the fistula. Under ether anesthesia by the drop method; now much of the abdominal wall had necrosed and sloughed, strong adhesions were severed, the caecum resected and a lateral anastomosis done between the small intestine and the ascending colon. At this operation a large fecal impaction was found high up in the rectum reaching almost into the sigmoid. As the patient was in bad shape, this was hastily broken up, followed as post-operative treatment with oil and asafoetida enemas, a crescentic flap of skin and fat taken from the adjacent wall was swung around to cover the anastomosis, time of operation one hour and a half, the patient was taken from the table almost pulseless and in profound shock, but with shock enemas and stimulation, and after another stormy

period, she began to improve, her fecal impaction was relieved and her bowels moved regularly. Pathological findings of the resected intestine: Glands of the intestine swollen, round cell infiltration of mucosa and submucosa with the lymphoid cells increased. No malignancy, pathological diagnosis, subacute inflammation of colon. Discharged cured May 5, 1920.

Recently the thin tissue of the plastic operation, covering the anastomosis broke down to some extent which with the usual care soon healed.

Some six months ago we operated on a young man 28 years of age for suppurative appendicitis at St. Mary's Hospital, the appendix was at its outer two-thirds, swollen, inflamed and perforated, the man was septic, the appendix was removed and the stump tied off, because it could not be inverted, as he had free pus in the peritoneal cavity, he was drained through the loin, and the anterior abdominal wall. He made a recovery in due time, leaving the hospital in three weeks, but with a small fistula discharging a thin seropurulent fluid, as he was my private patient, he came to my office to have this treated, despite my best efforts after three months this fistula remained. At my office, with due aseptic precaution we enlarged this fistulous opening at its exit on the abdominal wall, and on passing a probe deep into the tract something hard could be felt at its base, the sinus was still further enlarged and the flat end of a probe passed under a hard fecal concretion which was slowly dislodged, this had evidently escaped us at operation and at its effort to escape embedded itself in the lower end of the fistulous tract at the opening into the caecum, some slight fecal discharge followed the removal of this concretion for about ten days when perfect closure took place. No doubt there were sufficient bacteria embedded in this concretion to cause the seropurulent discharge which kept this fistula open and caused sufficient necrosis about the caecal exit to account for the fecal discharge for the ten days following its removal.

Two points in the treatment of appendicitis which have to do with the production and continuance of intestinal fistula are first, the management of the appendical stump and second, prolonged drainage. We have tried several methods of treating the appendical stump, from the mere tying to the entire inversion of the appendix according to the Edibold method, and in this last I did not succeed. I have finally settled down to the Daubarn method, and when able to invert at all, this has yet to disappoint me.

Ligaturing an appendical stump as you would an artery, when other and better means could be used, should be avoided, because there is a fluid in the lumen of the appendical stump laden with bacteria which will quickly attack the circle of tissues disabled by compression anemia under the ligature. It must not be forgotten that symptoms at times do not even suggest the pathological conditions of the appendix, I have at operation found a rupture of an appendix come on, so far as symptoms are concerned, within 10 or 12 hours. This is accounted for by the type and verilance of the bacteria entering into the infection.

Of late I have become more radical in these late cases of gangrenous and desperate cases of appendicitis, wherein these hazardous cases of fecal fistula are likely to occur, particularly when the caecal wall has been invaded by bacteria, or where the infection has disturbed the capillaries, disabling the caecal wall to a marked degree. Here I believe the caecum should be removed as is a gall bladder where its walls are thoroughly diseased or if the diseased area of the caecum is

not large, excision should be done as in gastric ulcer. A case typifying the latter condition is briefly mentioned here.

J. K. age 42 years, U. S., previous health good, family history negative, brought to St. Mary's Hospital April 4, 1920, with the following history. Three nights before admission, drank some rotten whiskey which gave him a severe pain in the throat and abdominal region, this pain finally localized in right lower abdominal quadrant. Physical examination negative except as to his abdomen. Laboratory findings, differential blood count, number of blood cells counted 200, stain wrights. Polynuclear neutrophiles 91%, large lymphocytes 2%, small lymphocytes 6%, transitional 1%, was operated on soon after admission; right rectus incision, appendix delivered, gangrenous with much adherent and necrotic omentum, both removed. The caecum was necrosed for a small area about the base of the appendix, this area was removed and the opening closed with three banks of sutures, pagenstecher number eight being used for the last lambert layer, a Mickulitz drain was placed at the point of excision, and brought out in the flank, the abdomen closed in the usual way, Some slight seropurulent fluid escaped for about a week or ten days, when the tube was removed. The abdominal wound healed by primary union. He was kept in bed for four weeks and under observation one week longer, always under appropriate diet, he left the hospital at the end of this time in perfect condition. In just such pathological conditions as this in the past, where I did not follow this procedure I have encountered trouble with fecal fistula.

Surgeons must not flatter themselves that they have said too much as to the dangerous sequelae of appendicitis of which intestinal fistula is one. On the contrary, the strongest evidences can be brought to bear that they have not said enough; if they have, their warnings have miscarried; hence they should continue to warn. The evidence I speak of, is the continued high mortality of appendicitis in hospital practice, notwithstanding the best skill and care are exercised.

In the two hospitals to which I have the honor to belong, practically all the cases lost in my own service, and that of my colleagues, are late and neglected cases. The early interval cases have a mortality of less than 1 per cent., and a very close investigation will show these to be due to tuberculosis, syphilis and rarely to accident. A chance so small as against the dangerous sequelae of appendicitis, can be conscientiously recommended by both physician and surgeon, particularly will this be true if they bear in mind, that nearly all of the more dangerous sequelae, have a mortality, and that a death rate continues to cling to intestinal fistula following appendicitis. "As the sturdy oak springs from the little acorn so from the tiny erosion in the appendical mucosa, the nidus for the growth of bacteria, springs the death dealing complications of appendicitis." Must the doctor doubting the wisdom of early operation in appendicitis, lose a patient for each sequelae before he is convinced that they are to be reckoned with singly or collectively in every case coming before him? If so, a declining mortality cannot in appendicitis at least, mark the track of progressive surgery.

I am following the plan that I suggest above which appeals to me as the best means to prevent, and deal with fecal fistula following appendicitis.

CONCLUSION

- 1—Early diagnosis when possible.
- 2—Early operation if the disease is progressive.
- 3—In so called fulminating and late cases study well the pathology of the caput-coli and the adjacent tissues about the appendical base.
- 4—If bacteria have necrosed the tissues about the appendical base excise the stump and treat the rent as in gastric ulcer, placing a Mickulitz drain over the lambert sutures, provided the patient's condition will permit the work.
- 5—In obstinate fecal fistula following appendicitis, practically when producing an artificial anus, not only rendering patients helpless, but indangering their lives, resect the caecum and anastomose the small intestine latterly with the caecum.
- 6—As a large proportion of fecal fistula following appendicitis close spontaneously, unless of the dangerous variety requiring immediate attention, we should wait from 3 to 5 months for this spontaneous cure.





EDITORIAL



THE FUTURE OF THE DISPENSARY.

THE following excerpts from the annual report of the Good Samaritan Dispensary by Dr. Louis F. Bishop are worthy of careful consideration by every physician, as well as by those upon whom the responsibility for the development of the dispensaries rests. Many dispensaries have had some or all of the departments mentioned by Dr. Bishop in operation for longer or shorter periods, but the problem as a whole has been merely nibbled at.

"New departments should be established in conformity with the development of specialism during the last few years. The diagnostic work of the dispensary should be perfected and separated from the casual therapeutic work. A social service department should be started including an efficient follow-up system. The dispensary should stand for the ideal of improving the standard of medical practice and the condition of public health. This means that a distinct effort should be made toward public health education in connection with our work.

Dispensaries were originally started in the Seventeenth Century with the idea of supplying needed medical help to the destitute. Now the greatest dispensaries in the world are public health centers where a high standard of medical practice is carried on to give to the general public the same high class service that the rich are able to pay for.

The question of where the average physician belongs in this new order of things is a difficult one to answer and is a matter of worldwide debate at the present time. It would seem, however, that unless the care of the health of the people is to become a matter of pure state control and administration, there must be institutions co-operating with the practicing physicians of the city where they can obtain for their patients high class special assistance, retaining the patients under their own general supervision. The idea of abolishing by means of law the competition between public medical philanthropy and those physicians who treat the same people in private has utterly failed and must be abandoned. For that must be substituted cooperation where the dispensary helps the average physician to bring his practice up to a satisfactory degree of technical completeness for which service the patient must pay enough to support the work when the matter of rent, cost of administration, profit and interest on capital are provided by the endowment of the institution."

There are a number of factors in this problem that make its solution difficult—problems that are not all economic, but are grounded in the psychology of medical practice and medical practitioners. It is difficult to decide what are the compelling motives that urge the average youth into Medicine as his life work. It may well be that a definite tendency to a high idealism coupled with a desire for independent activity are essentials, for certainly two of the most obtrusive characteristics of the full fledged physician are an independence that makes him

intollerant of legal control so that it is difficult to obtain efficient co-operation among physicians even when it is obviously essential for their own good; and an impractical way of regarding the outside world that makes him resentful of suggestions from his fellows, narrow in his survey of large problems and jealous of what he considers his own prerogatives. It must not be thought that these are the sole characteristics of a physician, or that they are not offset by other qualities, such as self sacrifice, altruism and nobility of purpose that are big and fine enough to overshadow his faults and make him a loveable man. But any one who had tried to organize physicians to fight undesirable legislation, or who has been called upon to build up a deficient hospital or dispensary service will bear witness that a hint of inefficiency is enough to arouse active hatred, just as the endeavor to exert authority is met with antagonism. Because of these peculiarities it is extremely difficult to show the average physician not actively associated with a progressive institution (and for that matter some that are) where he lags in the march. If, as Dr. Bishop has suggested, the State were to take over the control of medical practice in the interest of the general welfare it would be but a little time before the personal interest of the present method would be replaced by departmental formalism, a result that can be readily demonstrated in any one of the National, State or Municipal departments where physicians are employed at a fixed salary. It may be that it was the certain knowledge of this result that led such an overwhelming majority of the New York Policemen to vote against the proposed Police Hospital. If this consummation is to be avoided, the problem must be solved by physicians, either through a more general discussion of these vital questions in society meetings and in the medical press, or through the deliberation of a special commission. This much can be pointed out by way of guidance; the action of the American College of Surgeons in rating hospitals according to the advance made by them in establishing improved records, follow-up systems and the like has in a very short while wrought notable improvement in most American hospitals. No one likes to see his name near the end of a list of delinquents and the mere listing of hospitals has had a most stimulating effect. The subject has not yet become one of personal interest to the average practitioner, however, and steps are needed to startle him out of his self sufficiency. If he can be gotten to take an enlivening interest in attaching himself to some institution where he becomes one of a group and through contact with ambitious competitors gets the idea of progress, the solution of the problem will be in sight. The real difficulty lies in overcoming the professional inertia that is so apt to grow from lack of close touch with the leaders of thought.

H. G. W.

EGGS IS EGGS.

NOT least among the startling items that flash across the senses from the daily news is a statement vouched for by a citizen who is not employed in the cold storage industry, but who deals in food from the laboratory standpoint, that eggs—ordinary, every day hen fruit—not only survive seven months in cold storage, but are improved thereby! At first glance this seems to be at variance with domestic experience, for we recall how, during a period of acute financial depression in our

college days, we were reduced to the expedient of living on the very limited diet that could be cooked on an oil stove in our room. Our first purchase of eggs—not special white Leghorn, nor strictly fresh eggs, nor new laid eggs, nor guaranteed eggs, but just eggs—was designed to be a three minute, soft boiled epicurean delight. To this end three were placed in a covered saucepan on the oil stove. In much less than three minutes a volcanic disturbance occurred that, both in explosive force and sulphurous smell, persuaded us that someone had been tampering with our food. We have since been assured by masters of cookery that those particular eggs should have been fried. In endeavoring to reconcile this experience with the more recent pronouncement at the head of this column we are at once in difficulties, unless we assume that our eggs had not been kept for the full seven months. If the impression gathered from reading about cold storage eggs is correct, there is a ripening process, a mellowing as it were, dependent on keeping the eggs at the proper low temperature that results in a greatly improved flavor and added nutritive qualities. One might be tempted to accept this statement in the spirit of that incredulous father when the singing teacher told him that his daughter's voice was very mellow. "Ah!", he said, "I see. Mellow is the next thing to rotten." But after all it is all a matter of taste. In New York folks pay ten cents extra for selected white eggs. In Boston brown eggs are at a premium. In Pawtucket the popular breakfast food is pie. In other districts it varies from fried chicken to baled hay. All these matters are relative. We are told that there are persons who do not care for Camembert cheese! And in the East they flavor their food with asafoetida! Therefore the liberal editorial mind declines to take a positive stand on this matter of cold storage eggs, and contents itself with the advice of play safe and fry, or at the least, scramble them.

H. G. W.

CALIFORNIA SHOWS ITS' SENSE.

THEY do things differently in California. If a man fails to get a private bill passed by the legislature he can present a petition, which, if it carries enough signatures, brings his bill before the entire voting population where it may be passed by a majority vote. In the same way already existent legislation may be reconsidered by an appeal to the voters direct. This is the essence of the initiative and referendum.

Having failed to persuade the legislature of California that vaccination was a harmful procedure the anti-vaccination agitators brought the matter before the public for their vote. And in the same way our perennial obstructionists, the anti-vivisectionists, brought forward a highly colored appeal to the sympathies of the people of California couched in their familiar terms of misrepresentation, and, as usual, urging the people to protect the rats and dogs and cats and let the babies suffer.

For a time there was grave anxiety lest the latter appeal might cause the impressionable and unthinking to vote in favor of the rigid restriction that these narrow-minded bigots are so constantly urging, and the entire personnel of the States' medical

and educational institutions threw themselves into a campaign of enlightenment and education. As a result anti-vaccination was beaten 359,907 to 468,911; and anti-vivisection by the much more impressive vote of 272,288 to 527,130.

The impression that one gathers is two-fold:—that more emphasis was laid upon the latter, and that vaccination failed to receive the emphasis as a public health measure that it requires. In any event, the people of California have gone on record in no uncertain terms in favor of medical progress. This is a most refreshing experience when one considers the nation-wide combat that is steadily growing up between legitimate medical evolution and impractical welfare legislation.

H. G. W.





Society Transactions



BROOKLYN SURGICAL SOCIETY MEETING OF OCTOBER 7, 1920.

Fracture of the Ischium.—X-Ray.

Harold K. Bell, M. D.

A. L., a man of 57 years, an advertising solicitor by occupation, admitted to the Methodist Episcopal Hospital Sept. 3, 1920, was referred to me by Dr. C. A. Anderson.

One hour before admission to the hospital, while walking along the street, the patient stubbed his toe against a slightly-elevated flagstone. He lost his balance and tended to fall directly forward on his face. To protect himself, he quickly twisted so as to break his fall with the right side of his body; consequently, he fell on his hands and right elbow. His left side did not hit on the sidewalk, but, nevertheless, he felt an immediate severe sharp pain in the region of his left hip, especially over the joint and extending down the extensor and adductor surfaces of his thigh. He was helped to his feet by a bystander and attempted to take a step, but found he could not raise his left foot.

He was removed to his home by a passing automobile. He called his physician, who had him sent to the hospital at once.

Physical Examination. Moderate tenderness in the entire left buttock; severe tenderness *only* over the ischium and best elicited by pressure on the tuber ischii. Limited motion (both active and passive) at the left hip-joint could be obtained without causing pain; even flexion to 30 degrees and abduction to 15 degrees caused very little discomfort. Extensive ecchymoses of the left buttock and thigh appeared within a few days.

The important point in this man's history is the fact that at the age of 18 he contracted a chancre. Not till two years ago (he is now 57) did he realize that he had syphilis, but during the past two years he has been on almost continuous mixed treatment and injections of salvarsan. His Wasserman is still four-plus.

The treatment of his fracture has consisted simply of rest in bed, the pelvis being supported by a wide muslin binder passed around it, the knees being fastened together.

I consider this case interesting, *firstly*, on account of the rarity of this type of fracture. Stimson, in his textbook on fractures (edition 1907) reports only six such cases collected by Malgaigne. In three of these cases the cause was a fall upon the buttocks; the fourth was a gunshot fracture; the fifth was caused by an explosion; and the sixth was in a woman who had previously suffered a double vertical fracture of the pelvic ring, in whom the ischium was broken off at instrumental delivery.

And, *secondly*, whereas such fractures are usually the result of direct violence, it would seem that this fracture was caused by muscular action, the patient's syphilitic condition being a contributing factor in its production, though it is possible that the indirect violence consequent to stubbing his toe may have been the *direct cause* of the break.

DR. JOHN LINDER:

"I have at present a boy who was struck by an automobile. He was brought into the hospital with an avulsed fracture of the ischium, severing practically all of his femoral muscles, laying bare his femoral vessels, and clipping off about a half-inch on either side of the tuber ischium. That was an avulsed fracture due to a muscle tug. I think possibly that might account for the fracture that Dr. Bell reports—a muscular action rather than a stumble."

DR. W. L. DUFFIELD:

"About a year and a half ago I was called to see a young woman who had been riding in an automobile. The automobile was struck by a trolley car, but it was not overturned and she was not thrown from the machine. A man who was sitting alongside of her was thrown forcibly against her and partly on her lap, resulting in a fracture extending through the descending ramus of the pubis and ascending ramus of the ischium, accompanied by a ruptured bladder."

DR. WALTER TRUSLOW:

"I do not know, Mr. Chairman, on the question of this fracture being caused by muscular action, that we can settle it, but I think I can see the mechanical way in which that could occur. Of course, we will have to presuppose a very weakened condition there from the long time syphilis, and indeed the x-ray picture seems to show anything but a good line. It looks quite syphilitic in the bone in that neighborhood."

"In tripping the first effect is to catch the body from falling forward. The quadriceps will hold the knee-joint from giving and then the trunk going forward, you have the sudden action of the hamstring muscles on the tuber ischii to prevent falling. It seems you have a fairly good pull on a bony structure there that is weakened."

DR. JOHN E. JENNINGS:

"It would be very interesting to know in this particular case if any evidence was shown of a spinal cord disease, tabes particularly. The long history of syphilis, the evident appearance of the bone in the x-ray plates and the fact that we so frequently get fractures from slight violence, muscular violence, in early tabes would make that an interesting question. I wonder if Dr. Bell could tell us of any such disease."

DR. HAROLD E. BELL:

"In regard to the third case, the man with the fracture. We have noted no definite symptoms of tabes. He has no Argyll-Robertson pupil. He has had an indigestion, but not of a gastric crisis type, for a number of years. He has considered his health excellent. He has never had any trouble. His past history is quite negative except for his indigestion. We have not tried him out particularly for the discovering of the tertiary stage of syphilis, so far as his tabes dorsalis is concerned, but it is a thing that we will look into."

DR. H. T. LANGWORTHY:

"Do you know why the man had a Wasserman done two years ago?"

DR. HAROLD K. BELL:

"This man had been to a number of physicians complaining of his anemia and headaches and his family physician, in the course of a routine examination, had a blood examination and I think it was suggested both by his headaches and by his anemia."

DR. JAMES C. KENNEDY:

"The shortness of Dr. Spence's paper, which was an elegant paper, shows that he has taken up the least important phase of osteomyelitis. It seems to me that we might recall to mind the old saying, 'If you know what is the matter with your patient, you have him half cured.'"

"Diagnosis to me has been the great bug-bear. I believe when we can make a diagnosis of osteomyelitis and can make it early, we have our patient half cured, and I think that is the important phase of the disease."

"The treatment, of course, as Dr. Spence has said, lies in the great many new things which have been brought about, but, in my judgment, the important thing is to make an early diagnosis, followed by early treatment. Almost any plan of treatment will save life and limb."

"Now, I took the trouble to go up to the record room in St. Catharine's Hospital and in looking over the records of that hospital for a period of three years, from 1917 to 1920, inclusive, I found that we had 48 cases of osteomyelitis with 4 deaths, a mortality of about $8\frac{1}{3}$ per cent. Nearly all the members of this group were from 7 to 14 years of age, thus confirming the general opinion that this disease is more prevalent among children. Of the 4 deaths bone pus was examined in 2, showing a mixed infection, streptococcus and diplococcus in one and a pure streptococcus in the other. Both died of septicemia, bearing out to some extent the contention that the streptococcus and mixed infections are more fatal than the staphylococcus, which is the dominant factor, in our experience, in the production of osteomyelitis. In the other two cases where the pus was not examined, one

died of hypostatic pneumonia, which in all probability was septic. The other died of general septicemia, which was due to the osteomyelitis.

"Of these 48 cases the long bones were found diseased 11 times, the flat bones once, and the other bones 36 times. This should warn us to look for osteomyelitis in almost any bone.

"Now, we all know that osteomyelitis at times is very difficult to diagnose in an institution where we have 700 children from 3 to 14 years of age.

"Florence C., age 8 years, Feb. 5, 1920, developed a severe pain in the right knee with no visible or palpable evidence of trouble in the joint proper. This was one of my difficult cases, where I didn't make the diagnosis. Now, this girl complained of pain above, but not in, the hip-joint. With the exception of the pain in the knee, all the clinical signs and symptoms of hip-joint disease were wanting. However, suspecting a beginning and obscurative joint trouble, she was put to bed and extension applied. On Mar. 2 she was so much improved by the rest and extension that we felt our fears as to her hip-joint trouble were unwarranted, so this line of treatment was discontinued. About May she developed pertussis, which went along until some time in July. At this time a painful swelling showed itself over her right ilium with more pain in the right knee. This was due, in all probability, to muscular spasm or from pressure on some of the branches of the obturator and sciatic nerves which supply, to a certain extent, the hip and knee-joints. Now, this abscess that was found over the ilium was opened and drained with great relief to the patient. The pus was not examined. Recently the healed wound re-opened and the same symptoms have recurred. The probe shows roughened bone of the ilium. The pus contains staphylococcus as the offending micro-organism. A Wasserman test is negative; the von Pirquet test is negative. The x-ray discloses necrosis of the ilium. We have here a chronic osteomyelitis supervening upon an acute osteomyelitis, which I now feel she had at the beginning.

"Patience and perseverance are prominent factors in the treatment of these cases of osteomyelitis.

"A boy about 10 years of age entered St. Catharine's Hospital some 8 or 9 years ago with osteomyelitis of the right humeral shaft. After consultation, we thought that conditions pointed toward amputation, it being one of those greatly neglected cases which fall into the hands of all hospital surgeons at times. A long incision over the periosteum brought to view a disintegrated humerus bathed in pus. The periosteum was thickened, but there was no involucrum. The shaft was entirely destroyed up to the epiphyseal lines. The debris was removed by the curet. The cavity was irrigated and swabbed with 95 per cent carbolic acid, followed by alcohol. The periosteal sac was packed with iodoform gauze and the arm placed in a wire trough for 4 months, when regeneration of the humerus was advanced. He left the hospital at this time to receive dispensary care. After patients remain in the hospital and we feel it is safe that they should go to the dispensary, we send them down to the dispensary. As we have our assistants there, we are able to keep track of them. This boy went to the dispensary for a while and then left. We lost track of him for several years when he called at my office. At this time he told me that his arm was strong and that he was then an apprentice learning the machinist trade.

"As to treatment: the methods I follow are incision, curettage and drainage. I have tried Sheedy's method a few times and succeeded only once. The methods of grating skin flaps or pedicles into the trough of the curetted long bones, or loosening the skin on the side and carrying it so as to fall into the cavity of the curetted bone, I have not tried, but they seem plausible and reasonable. Sands' decalcified (?) chips have been reported as being successful in many cases by various surgeons. With those I have had no experience. All these methods seem good. As time goes on I shall certainly give them a trial.

"I have not had time to look over the journals as to the modern treatment as well as I should have liked to. I think Dr. Spence has covered the ground thoroughly on the question of the treatment of osteomyelitis by the recent methods.

"I find, as I said in the beginning, that early diagnosis is the important thing in connection with osteomyelitis. If you make an early diagnosis, you will certainly treat your cases early and by any method of treatment that you wish to follow you will save life and limb."

DR. WILLIAM H. RANKIN:

"I think the doctor has gone to the heart of the whole subject. It is a question of the condition of the bone. If the bone is not thoroughly sterile, it matters not what you put in, it will probably break down and the wound will not heal up. There is nothing that I know of that is more unfortunate than having these people come back to you with a 'running' sore. If we have to deal with tubercular osteomyelitis, the blood clot is as good as anything else with which to fill the cavity and you will be successful. Where there is more purulent infection the problem is to keep the cavity dry, stop the bleeding and then sterilize as far as possible with carbolic acid and alcohol. Moorhof's bone wax seems to work well in fairly small cavities where you can get the cavity thoroughly dry and thoroughly sterilized. I have had primary union with that. Another simple dressing is Morison's bismuth paste.

"There is nothing more simple and neat than the method the doctor has employed of using Dakin's solution in order to make sure that the bone is sterile and clean along the medullary canal because that seems to be the weak point.

"Skin grafting is recent. I have not used that, but it would seem to be at times the only available method.

"I have a feeling, however, that if we can make reasonably sure we have gone to the limit of the disease and scraped away all the dead bone and it is absolutely dry and the bleeding is all stopped and then thoroughly sterilizing with carbolic and alcohol, it does not so much matter what is put in as long as you fill the cavity, and then you will probably get a good result."

DR. WALTER A. SHERWOOD:

"Dr. Spence has confined his remarks to chronic osteomyelitis, so I will simply discuss the paper from the standpoint of chronic bone infection.

"It seems to me that these cases are never emergencies and never virulent infections and, therefore, we have plenty of opportunity to make a thorough and systematic study of each individual case. I think if we do that in the individual case, it will go a long way toward helping us in the type of surgical treatment which we follow. They should be studied from the clinical and from the bacteriological standpoint, which will often be helpful. They should be studied thoroughly from the x-ray standpoint, and I believe every case of chronic osteomyelitis should have a pair of stereoscopic x-ray plates in order to know definitely as nearly as possible what we have to deal with. We should remember in these cases of chronic osteomyelitis that it makes a little bit of difference whether the inflammation is a rarefying one or a productive one.

"When it comes to actual surgical treatment it seems to me that the principles outlined by Schutro are the most satisfactory in the long run in the average case of chronic osteomyelitis, and we should remember that the exposure in these cases should be very wide and very free; that we should be able to see what we are doing—a big, free incision with periosteal retraction, so we can see with our eyes as well as feel with our finger, so as not to dig down with the curet. I think the curet is bad in these cases. I think the chisel and mallet are very much more preferable.

"I think the average case does best, as Dr. Spence has said, with subsequent disinfection with the Carrel-Dakin solution. I think it is absolutely useless unless it is used accurately according to the directions of the Rockefeller Institute.

"So far as the flaps of muscle and fat are concerned, I think, in a general way, we should outline our incisions and do our operation in such a way that the soft parts can easily fall into the cavity left in the bone. I think that is the essential thing to do.

"The majority of these cases will do satisfactorily if the dead bone is removed and the cavity subsequently sterilized and if they are left alone.

"I might also add that an important part of the treatment lies in the early immobilization of neighboring joints."

DR. RICHARD W. WESTBROOK:

"I do not think that I can add very much to the discussion, Mr. President. The ground has been covered very thoroughly.

"The point that Dr. Rankin made of the thorough sterilization of the bone, I think, is the one to emphasize and I have seen some very good results after the Carrel-Dakin treatment and I have had various experiences in sliding in flaps, some successful and some not so successful."

DR. RUSSELL S. FOWLER:

"Just to supplement Dr. Sherwood's remarks, which covered the field very fully, I would like to say that I had a case a couple of years ago in which I used the cleaning methods, following the underlying principle of making a clean cavity, and it refused to heal. The Wasserman was 4-plus in this case and iodid treatment caused a rapid healing, so I think it is advisable in these chronic cases to make such blood examination, as I suppose was also meant by Dr. Sherwood, so as to determine the general condition of the patient."

DR. J. BION BOGART:

"I have been especially pleased with the recent discussion on this subject. I have been satisfied to sit still because I do not think there is anything more to be said until we learn something that we do not know already."

"The things that appealed to me most strongly have been the thorough exposure of the diseased tissue and its thorough removal and the sterilization of the parts."

"The chief advance that I see in the treatment of chronic osteomyelitis is the Carrel-Dakin solution properly applied. That will enable us to get better results than we have heretofore had, and the methods that were used before can be used more satisfactorily after that treatment."

"I don't think there is very much to be said. We are to be congratulated, I think, on the very precise way in which Dr. Spence has presented the subject. He might have given us very many examples and reported what we all know, or ought to know. He has presented the bare facts which we can carry away with us."

DR. THOMAS M. BRENNAN:

"I have nothing to add, except to emphasize the importance in chronic osteomyelitis, following acute osteomyelitis, of being more thorough and more careful in our preliminary operations; that is, the early diagnosis, the importance of drainage of early cases with operation and the preservation of the periosteum and not damaging it too much in our early operations for acute osteomyelitis, and not being too vigorous in the use of the curet at the early operation, and, I think, the early removal of the dead bone, not allowing a partial involucrum to form and the formation of large cavities, which necessitate these large operations. In other words, taking the necessary steps to guard against the possibility of the production of chronic osteomyelitis."

DR. ROBERT F. BARBER:

"I would like to bring forth what Dr. Brennan has just said in connection with osteomyelitis, whether it is a traumatic case or a case treated conservatively by early operation with trephining of the bone and temporary relief to the patient. At what time does the condition become suitable for extensive operation, such as described? In other words, when does it become the type of case for this particular treatment? There are those advocates of the immediate operation with extensive opening of the bone cavity and the application of the Carrel-Dakin method, but I believe the consensus of opinion, from experience abroad, was that those cases are best handled not radically at an early stage, and gentle treatment in the early stages is advised, and it is not considered a case for radical operation until six or eight weeks have passed—until the line of demarcation between dead and live bone has been established, and you can ascertain with a good head-light at the table how extensive an operation is necessary."

"I would like to ask how Dr. Spence feels about the extensive radical operation in early cases as contrasted with delayed operations after a period of six or eight weeks."

DR. C. H. GOODRICH:

"I have nothing to add, except to say that, in my application of the Carrel-Dakin treatment, it has been most satisfactory, and as Dr. Spence employs it, it will very often prevent the necessity for the extensive operations that have hitherto been necessary."

"It seems to me that, as Dr. Barber has said, we should recall that many of these cases when they come to us are in a profoundly septic condition: they are very acutely ill, and I have seen some frail children upon whom a radical early operation would be impossible with safety and we must be satisfied with draining the bone cavity reasonably well, knowing that there will be destruction of the bone in six or eight weeks, according to the bone involved and the age of the child."

"The point Dr. Brennan raised in regard to waiting too long is also very important. The long waits necessitate the extensive operations with more

likelihood of pathological fracture and the extent to which involvement has existed."

DR. E. A. PARKER:

"I think Dr. Spence has covered the chronic cases very well. It seems to me that in the acute cases we should do as little as possible and that in the chronic cases we should be as thorough as possible. Dr. Spence has covered the whole ground, I think."

DR. JOHN E. JENNINGS:

"It seems to me that the question of the bone separating in six or eight weeks is a little sanguine. Nichols' figures ran from six to eighteen months. I think the cortical sequestra are not very much nearer that time. In other words, I think the six to eight weeks' operation in these cases is an intermediate operation and is neither one thing nor the other."

"If we can get an early diagnosis in the first ten days, we can frequently do a complete operation, by which I mean taking out about one-quarter of the cortex without disturbing the marrow at all, going definitely over and beyond the infected area, and if one is fortunate enough to do that, the case will be closed in from six to eight weeks' time. We have had a number of very satisfactory instances of that kind. That cannot be done if the patient is so sick as to prevent it. If the patient is too sick, then the later operations will have to be judged by the appearance of the x-ray and the separation of the sequestrum. The little medullary sequestra separate in weeks, but the larger sequestra will take months."

"I am very much averse to the use of the curet; in fact, in my operative sets for osteomyelitis no curets are allowed on the table."

"I think the regeneration of the bone always takes place in the marrow. In going after abscesses one frequently removes the places from which one hopes to get bones. Drainage should be done. No marrow should be scraped away." In this connection, the doctor referred to the case of osteomyelitis of the tibia where the proliferation "is most usually on the back of the bone, going through and laying bare one-third of the bone," stating that in such a case if the bone is left open and the marrow not curetted and antiseptic dressings done results of a satisfactory character will be obtained. Continuing, the doctor said:

"I think the sequestra should be removed. Drainage should be done, but what little marrow remains in those cases should be given full and free opportunity to proliferate and grow."

DR. RUSSELL S. FOWLER:

"The discussion of Dr. Jennings is a delight into the soul. It brings out what I think we should all bear in mind, namely, the study of the pathology of the disease, the study of the pathological course of the disease, is what leads to the best treatment."

DR. WALTER TRUSLOW:

"I am very much interested in what Dr. Jennings has just said and would like to ask what relation, then, would the Carrel-Dakin solution bear to his idea of conserving the marrow."

DR. JOHN E. JENNINGS:

"I have been partly satisfied with the use of Dakin's solution in the chronic cases with cavities. I think it will allow one to use a little less exposure of the cortex in certain cases. I am not at all satisfied that the Carrel-Dakin solution will not destroy young, freshly opened marrow, and I may say frankly that in the treatment of acute osteomyelitis I prefer other agents."

DR. HENRY F. GRAHAM:

"I have nothing to add, except to say that possibly the use of a motor-driven saw will widen the field of operation in the acute cases and there will be less shock to the operation."

DR. ROBERT F. BARBER:

"I may be wrong, but I would like to take exception to Dr. Jennings' statement about regeneration of bone in the marrow. I believe the regeneration of bone takes place in the periosteum in these cases, and as an example of that I would like to say that I did myself six months ago a case of osteomyelitis in a child where I removed the entire shaft of the humerus and by the use of splints and artificial apparatus we got restoration of the humerus in the periosteum, which I did not disturb. There was just a shell in the periosteum."

DR. JOHN E. JENNINGS:

"What I am saying is if you scrape out the medullary canal (I will admit it does not come from the inside of the cortex), scrape out the marrow, which is frequently done, you are destroying the source of new bone."

DR. A. C. HOLZMAN:

"May I suggest that in the pathology of bone, in which I think I did a whole lot in the past ten years, bone generates from two distinct places? One is the periosteum and the other is from the osteoblasts in the bone itself, and that the bone marrow in itself is a distinct hematopoietic organ and hasn't any connection with bone-producing properties."

DR. WILLIAM H. RANKIN:

"In regard to the remarks of the last speaker that the osteoblasts grow the bone and that along the marrow of the bone there is merely the blood-supply, I would like to say that that is MacEwen's idea, whereas Murphy believed that the skeleton of the bone, through the medulla, is the framework upon which the bone has to grow. No one has been able to disprove MacEwen's experiments that it is through the periosteum and the osteoblasts which are thrown out from the cortex of the bone that bone is really produced."

DR. WILLIAM LINDER:

"I feel the whole subject can be summed up in this way—That in acute cases we have no right to use anything and no right to be radical. The indication is to relieve the tension and do as little as possible."

"I have had the good fortune of operating in these cases early, as early as twenty-four hours after they are in, before pus could be obtained, and culture of the fragments of bone showed the same identical organism obtained in cases where pus was formed and the periosteum was not stripped as yet. We had to drill into the bone and found a little trough of pus there with distinct drainage. On the other hand, in chronic cases on opening them up I got a medullary sequestrum. You must open up wide so as to follow the rough edges of the bone there and you should have no hesitancy about cutting where the medullary cavity was. There is no medullary cavity there. There is just productive inflammation there, and some of it is good. There is a distinct line of demarcation and when you get into healthy bone you get into the medullary cavity."

"The treatment of the two conditions should be entirely different. In acute cases we should content ourselves with drainage and do as little as possible. The important point is when to go in. I think the x-ray is the best guide we have. The local condition of the wound and the general condition I have lifted up an entire tibia as a sequestrum, and in that particular child almost every bone in the body was involved. The tibia was the original source of infection. All the others got along by chiseling only and the entire diaphysis then came away and regeneration took place and you wouldn't know that the child had had osteomyelitis."

DR. E. A. PARKER:

"I want to know, if Dr. Kennedy's case did so well, if Dr. Jennings is right."

DR. JAMES C. KENNEDY:

"I had the same kind of a case as the secretary reported, in which the entire shaft of the femur up to the epiphyseal line was involved. In that case I left the periosteum. There was no marrow there. The bone-producing element there must have been the periosteum."

DR. THOMAS B. SPENCE:

"I am perfectly aware, gentlemen, that if I wrote a paper on acute osteomyelitis I would provoke a great deal of discussion, and after I got started I stopped. I thought I had written something very innocuous. That is all I have to say."

Medical Book News

BOOK REVIEW SUPPLEMENT TO THE LONG ISLAND MEDICAL JOURNAL

Edited by JAMES M. WINFIELD, M.D.

All communications, books for review, etc., should be addressed to the Editor of this Department, 1313 Bedford Ave., Brooklyn, New York

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6 PAGES

PRACTICAL MEDICINE SERIES.

Series 1920, Volume 2, General Surgery, Edited by Albert J. Ochsner, M. D., F. R. M. S., LL. D. F. A. C. S. Chicago, Year Book Publishers, 1920. 620 pages. Illustrated. 12mo. Cloth, \$2.50.

The original plan for the yearly survey of surgical literature of the world as inaugurated by Murphy in the General Surgery of 1901 of this series has been preserved. The late lamented Murphy edited this work up to and including 1916. The year following Dr. Ochsner took it up and has continued up to the present volume, now under review. Here is recorded in one convenient volume a concise resumé of the world surgery. The inclusion of less war surgery, than appeared in the previous volume is a natural sequence of the lapse of a year. Foreign literature has not yet recovered from the effects of the war. It will be some years before their antibellum status will be re-established. We have gained much in experience and observation from war surgery which will be of practical value to the surgeon in civil life.

To those who have been engaged in the service of our country and who have lacked the time and opportunity to pursue their accustomed study of the progress of current surgical literature this volume will be welcome for here in condensed form are to be found such advances as are worthy of record.

In the introduction Dr. Ochsner emphasizes three points (1) Nothing of revolutionary importance has occurred. (2) The halt, sustained by local anesthesia has ceased and local anesthesia now seems to be gaining again in favor after treacherous remedies have been replaced by novocain and its equivalents. (3) The importance of careful handling of tissues at operation is being recognized more fully. To these the reviewer would add that in general the two or three stage operation is coming into its own,

that the evaluation of individual resistance in surgical operations and the gauging of the margin of safety is more fully appreciated even though we still lack a means of measuring this accurately and must continue to rely upon that subtle, in-born or acquired something—surgical judgment.

About one-fourth of the volume is devoted to contributions on the general subjects of anesthesia, x-ray and radium therapy, new instruments, operative technic, amputations, wound healing, shock, tetanus and tumors. The balance is devoted to regional surgery, one-fourth to the abdomen, the remaining to the surgery of the chest, the upper and lower extremities, the spine and cord, fractures, bones and joints.

It is rather a pity that the pith cannot be punched out of surgical literature so that the survey will be available at an earlier date than is indicated by the issuance of this volume. No doubt if advantage were taken of the service of such a corporation as "The International Medical and Surgical Survey" (The Wellwood Corporation, 13 E. 47th St., N. Y. City) such a volume could be published at the end of the current year.

ROYALE H. FOWLER

OPERATIVE GYNECOLOGY.

OPERATIVE GYNECOLOGY. By Harry Sturgeson Crossen, M. D., F. A. C. S. Second Edition. St. Louis, C. V. Mosby Company, 1920. 717 pages. 834 Original Illustrations. 8vo. Cloth, \$10.00.

Gynecologists, in general, feel that this is the finest work for the specialist that has been brought out, and we were surprised that there could be need of a second edition. Into it has crept a few minor typographical errors readily understood by the expert reader, and one very definite editorial error on page 162, when the broad ligaments are called the round ligaments. The illustra-

tions are the same, except for more than sixty new ones of the previous high standard.

Chapter I, on retrodisplacement of the uterus, which, as in his first edition, is the best monograph on the subject ever seen by the reviewer, has been strengthened by the description of Young's technique for uterosacral ligament shortening.

Chapter II, on prolapse, now takes its place with chapter I by having a very thorough classification of operative methods and a very thorough description of the choice of operations, except there is no description of Reis' work on superimposing the bladder on the uterus by abdomen. In such a comprehensive work the author should at least refer to, if not describe Sturmdorf's conical amputation of the cervix.

In the discussion on cancer, the author has changed, only to emphasize the use of the more conservative forms of treatment, x-ray and radium.

In the chapter on chronic salpingitis, the author's technique does not approach in finish the careful work followed out by Norris in his "Gonorrhea in Women," and, when intending to preserve menstruation, omits the Bell-Buetner operation.

The description of procedure for malignant disease of the external genitals does not give the impression of as thorough removal as there should be of the lymphatic nodes of the saphenous ring and the inguinal canals. Everyone doing pelvic surgery should possess this work—it is for the specialist and expert and not for the student or general practitioner, for whom Crossen has a different book. It is, however, more than an operative atlas, as it gives in addition to technical steps, the discussion of indications for, and the choice of type of operation.

E. B.

DEVELOPMENT OF THE HUMAN BODY

THE DEVELOPMENT OF THE HUMAN BODY; A MANUAL OF HUMAN EMBRYOLOGY. By J. Playfair McMurrich, A. M., Ph. D. LL. D. Sixth Edition, revised and enlarged. Philadelphia, P. Blakiston's Son & Co., 1920. 501 pages. 290 Illustrations. 12mo. Cloth, \$3.25.

This little book is ideal for the student in these days of the crowded curriculum. The subject of embryology is becoming more important as our knowledge of the development of structures increases and the effect of developmental anomalies upon body function becomes better understood. It seems a pity, however, in view of the present interest in the endocrine glands that the development of these structures has not been given the importance of a separate chapter. The style is fluent and the diction good, making it a book easy to read and understand. The terminology is modern in every way. The illustrations and diagrams are especially good and of a considerable number for so small

a book. A very complete list of the literature is appended at the end of each chapter for those who desire further reading along any one branch of the subject. Anything that Dr. McMurrich writes must be considered authoritative and the present edition of this work is one of the best of its kind.

THE YEASTS.

THE YEASTS. By Alexandre Guilliermond, D. Sc. Translated and thoroughly revised in collaboration with the original author by Fred Wilbur Tanner, M. S. Ph. D. New York, John Wiley and Sons, 1920. 424 pages. Illustrated. 8vo. Cloth, \$6.00.

While there have been published many works on fermentations and industries dependent upon the yeasts, few if any books have been written giving a precise description of the yeasts as a class of microorganisms, of which over 500 varieties are known.

While yeasts have been employed by man for generations, and various industries have been dependent on them, the knowledge of these fungi themselves has, up to a few years ago, been scattered. Prof. Guilliermond collected the data thus scattered through the literature, and arranged them into a handy volume in 1912.

Prof. Tanner undertook the translation of the book into English adding many new facts published since that time. In selecting and arranging this new material he secured the assistance of the original author, thus bringing the book up to date, and it is probably the best book on the market in this particular field.

It should appeal to the mycologist or bacteriologist rather than to the physician, although the chapters on the cytology and physiology of the yeast, and that dealing with the pathogenic yeasts, of which 36 are described, are of interest to the medical man. These parts of the book are well worth reading.

EPIDEMIC ENCEPHALITIS.

EPIDEMIC ENCEPHALITIS (Encephalitis Lethargica). By Frederick Tilney, M. D., Ph. D., and Hubert S. Howe, A. M., M. D. New York, Paul B. Hoeber, 1920. 252 pages. Illustrated, 8vo. Cloth, \$3.50.

This book consists of clinical observations on two separate groups of cases. It describes very briefly, but clearly, the various types of encephalitis. The writers show by these two groups of cases that epidemic encephalitis is a distinct clinical entity; and that, through a general infectious process, it manifests itself chiefly as an encephalomyelitis.

Observers are wisely cautioned in the early stages to give a guarded prognosis. The resemblance to, and dissimilarities from poliomyelitis are gone into in detail; as is the apparent relationship to influenza. The writers do not seem to substantiate Hirschfeld,

Loewe and Strauss' claims that the direct causative microorganism has been isolated.

One cannot be but impressed by this study, and it can be highly recommended for the general student. It is characterized throughout by the same scholarly and scientific trend that one always finds in the writings of Tilney and Howe.

J. F. W. MEAGHER.

AMERICAN MEDICAL BIOGRAPHIES

AMERICAN MEDICAL BIOGRAPHIES. By Howard A. Kelly, M. D., LL. D., F. A. C. S., Hon. F. R. C. S. (Edin.) and Walter L. Burrage, A. M., M. D. Baltimore, Norman, Remington Company, 1920. 1320 pages. Royal 8vo.

American Medical Biographies is the second edition of the two volume work entitled, "Cyclopaedia of American Medical Biographies" published eight years ago.

The original work contained 1184 biographies and introductory chapters on the history of several of the specialties. The present volume has 1948 biographies, 815 of them being new, and nearly all of the old ones have been revised.

This second edition is in one volume of 1320 pages, 1284 pages of text and 36 of index. Two unusually good features of the work are that it contains lives of eminent non-medical scientists, who have made contributions to medicine, as for instance, Noah Webster the lexicographer, and the non-inclusion of medical men now living.

This work of Kelly and Burrage is of special interest to the physicians of Long Island, for it contains the biographies of many Long Island and Brooklyn physicians, as Armour, Skene, Fowler, Jewett, etc., some of the articles were written by Brooklyn men. In speaking of Long Island one is surprised that the editors overlooked the biographies of George Huntington who wrote the classical description of that chronic nervous disease known as "Huntington's Chorea." "Hereditary Chorea of Adults"; or that of George Huntington's grandfather, Dr. Abel Huntington who was prominent in medical, civic and national affairs early in the nineteenth century.

In these days when commercial medicine is striving for the ascendancy, the creation of a department of medical history and biography in our medical schools, would do much to combat the ever growing tendency of commercialism and assist in putting the profession of medicine back upon the high plain it occupied in former times. If such a department is ever created "American Medical Biographies" would serve as an admirable text book, for it depicts the struggles of those who through their own efforts against great odds attained the highest position possible in the medical world, as for instance Samuel D. Gross, and it also shows how those early physicians with little or no preliminary training, through their powers of perception and study were many times at the threshold of discoveries that are now common knowledge.

One admirable feature of the book is that nearly all of the biographies were written by men absolutely disinterested, and are edited in retrospect rather than from personal knowledge or association, the light of time has illuminated the bright spots and the true story of the life and character of the men has been handed down for future posterity.

Medical biographies should be, and are an inspiration to the medical student, and all who can, should own this book, for from the examples illustrated in the lives of those great ones who have gone before, one can get help to meet the exigencies of his own living professional problems, the courage to venture boldly into unknown fields, and a greater insight into the things that help to make the profession of medicine the greatest of all professions.

J. M. W.

PHYSIOLOGY AND BIOCHEMISTRY IN MODERN MEDICINE.

PHYSIOLOGY AND BIOCHEMISTRY IN MODERN MEDICINE. By J. J. R. Macleod, M. B. Assisted by Roy G. Pearce, A. C. Redfield, and N. B. Tayler and by others. Third Edition. St. Louis, C. V. Mosby Company, 1920. 992 pages, with 243 illustrations, including 9 plates in colors, 8vo. Cloth, \$10.00.

This volume typifies the trend of modern medicine. It applies the fundamental sciences of chemistry, physics and physiology to the study of the manifestations of disease. This is particularly exemplified in the study of the cardiac arrhythmias. The physiology of the heart beat is thoroughly discussed and the modern methods of instrumental study of the heart by polygraphic and electro-cardiographic methods is fully presented.

The first part of the book takes up the study of physico-chemical factors entering into the study of physiology such as solution, osmosis, electrical dissociation, ferment action, etc. In parts perhaps the discussions, formulae and equations are a little too deep for the ordinary practitioner and student and the omission of these by those not particularly interested will not detract from the subject matter of the book.

This book occupies itself with the study of function rather than structure in the diagnosis and treatment of disease. It emphasizes the fact that a thorough foundation in the pre-clinical studies is essential for an intelligent conception of disordered function or disease; that a teacher of physiology and chemistry must constantly point out the practical application of these, and that the teacher of clinical medicine must base his teachings on these fundamentals.

This book can certainly be recommended to those who wish an insight into the modern methods of approaching the study of disease. It is a book that merits careful thought and study.

HENRY JOACHIM.

CHEMICAL PATHOLOGY.

CHEMICAL PATHOLOGY. By H. Gideon Wells, Ph. D., M. D. Fourth Edition. Phila. & London, W. B. Saunders Company, 1920. 695 pages. 8vo. Cloth, \$7.00.

Were one to construct a five foot shelf of essential medical books, the reviewer believes that this work would be one of the most important upon said shelf. Modern medical science, in its efforts to discover the fundamentals of disease, has been greatly aided by studies in chemical pathology. More recently, physical chemistry has thrown yet more light upon the processes of cell life. Old ideas of disease are passing and, dimly, new concepts are forming. A working knowledge of chemical pathology is thus seen to be essential to the physician of to-day.

This latest edition of Wells is a treasure-house of information. The author has extensively abstracted the literature, making this a valuable reference work. The form of the previous editions has been preserved and much new matter added. By employing small type more freely the author has kept within the bounds of a single volume of convenient size. One notes that the introductory chapter on the chemistry and physics of the cell and of the colloids has been retained. This is justified as the average reader has but a hazy conception of these fundamentals. The subject of anaphylaxis has been given a separate chapter. One of the most interesting, is the chapter dealing with nutrition and the so-called "deficiency diseases." The feeding problems arising out of the war with the extensive use of food substitutes has stimulated research and developed some interesting observations. The reviewer believes that no one can have a real comprehension of disease until he has carefully read some such work as this.

E. B. SMITH.

NATURE OF ENZYME ACTION.

THE NATURE OF ENZYME ACTION. By W. M. Bayliss, M. A., D. Sc., F. R. S. Fourth Edition. London & New York, Longmans, Green and Co., 1919. 190 pages. 8vo. \$2.50. (Monographs on Biochemistry.)

This edition of Dr. Bayliss' monograph will surely maintain the deserved popularity that the former editions have enjoyed. The style adopted by the author is one which makes for clarity and concise statement. Numerous effective paragraph headings are used which enhance the value of the text for continued use or for reference. The literature references have been brought up to date, and a considerable amount of material has been added to many of the chapters which will add to the reader's general knowledge of the subject. The chapter on the mode of enzyme action has been rewritten under a new title.

Professor Bayliss is more cautious than ever regarding unconditional acceptance of the doctrine of the extreme specificity of enzymes. He writes: "It is, at the present time, a matter

of custom to postulate the existence of a new enzyme whenever some new substrate previously unknown to be attacked by any enzyme, is found to be attacked, either by a well-known preparation or by a newly discovered one.—It may be objected that the doctrine of 'lock and key' is unduly neglected, unless the doctrine of specificity is completely acknowledged. It appears, however, that Emil Fischer himself did not intend that his simile should be applied in the extreme way that his successors have applied it. His own experiments were, in fact, not continued for a sufficiently long time to decide whether a particular enzyme might not slowly attack a substrate differing from that on which it is particularly active. Moreover, it must not be forgotten that there are such things as 'master-keys' which are capable of opening several locks." (p. 135).

MATTHEW STEEL.

CHEMICAL PHYSIOLOGY.

THE ESSENTIALS OF CHEMICAL PHYSIOLOGY. By W. D. Halliburton, M. D., LL. D., F. R. S. Tenth Edition. London & New York, Longmans, Green and Co., 1919. 324 pages. Illustrated. 8vo. \$2.60.

In this revised edition the author has succeeded in adding a large amount of new data without increasing the size of the book. He accomplished this difficult task by means of judicious excision of matter no longer considered necessary. The order in which the subjects are treated is the same as that followed in previous editions. The experiments are clearly and concisely described, yet there is enough theoretical matter given to elucidate the practical data. The text is divided into two parts and an appendix. Part one, which comprises two-thirds of the book, is elementary in nature, and the experiments are mostly qualitative. Part two is an advanced course in which the more difficult biochemical preparations and quantitative methods are presented. The appendix contains a description of various instruments which are usually used in demonstrations. It also contains certain biochemical methods of research.

In brief, the text continues to hold its place as one of the most useful and reliable laboratory manuals in physiological chemistry.

MATTHEW STEEL.

THE SIMPLE CARBOHYDRATES AND THE GLUCOSIDES.

THE SIMPLE CARBOHYDRATES AND THE GLUCOSIDES. By E. Frankland Armstrong, D. Sc., Ph. D., F. I. C. Third Edition. London & New York, Longmans, Green and Co., 1919, 239 pages. 8vo. \$4.20. (Monographs on Biochemistry.)

Dr. Armstrong's treatise, which is one of the series of Monographs on Biochemistry, edited by Profs. Plimmer and Hopkins, is remarkable in its description of the purely or-

ganic chemistry of the simple carbohydrates and their derivatives. It is, in fact, the best text-book to introduce one to the recent developments in the chemistry of the sugars. These advancements have been the direct outcome of researches on the mutarotation of the sugars, and have centered mainly around the L and B-forms of glucose and the other sugars.

In this edition (Third), the subject has been brought up-to-date. The recent discovery of a third isomeric form of glucose differing from the pentaphane ring forms in structure—"probably containing a three-membered (triphane) ring"—has done much to increase our knowledge of the structure of all the sugars. "In particular much progress has been made in establishing the structural formulae of the disaccharides."

Many of the rarer sugars have been studied quite extensively, and they have been found to be more widely distributed in plant products than was formerly supposed.

MATTHEW STEEL.

ORGANIC CHEMISTRY.

ORGANIC CHEMISTRY for Medical, Intermediate Science and Pharmaceutical Students. By A. Killen Macbeth, M. A., D. Sc., F. I. C., etc. Lecturer on Organic Chemistry, Queen's University, Belfast. London and New York, Longmans, Green and Co., 1920. 235 pages with diagrams. 12mo. Cloth, \$2.00.

This book of 235 pages the author informs us is based on his Lecture notes on organic chemistry. It deals with the subject from the structural point of view rather than from the descriptive. The relations of the different organic compounds are briefly but clearly brought out, and it seems to be well arranged for this purpose.

It is intended as a text-book for beginners in organic chemistry, and the author recognizes the difficulties usually met with by the student in this branch of chemistry. He has met these difficulties by a clear style and by the abundant use of graphic formulae.

It ought to meet with a generous reception by teachers of organic chemistry.

E. H. B.

BACTERIOLOGY FOR NURSES.

AN INTRODUCTION TO BACTERIOLOGY FOR NURSES. By Harry W. Carey, A. B., M. D. Second revised edition. Philadelphia, F. A. Davis Company, 1920. 149 pages. Illustrated. 12mo. Cloth, \$1.25.

The arrangement of the subject matter in this second edition does not differ materially from the first. The chapter on immunity contains a brief description of the principles of complement fixation. The author's endeavor throughout this small volume is to present the essentials of bacteriology in a form comprehensible and practical for nurses.

E. B. SMITH.

REFRACTION AND MOTILITY OF THE EYE.

REFRACTION AND MOTILITY OF THE EYE, with Chapters on Color Blindness and the Field of Vision. By Ellice M. Alger, M. D., F. A. C. S. Second Revised Edition. Phila., F. A. Davis Company, 1920. 394 pages, with 125 illustrations. 12mo. Cloth, \$2.50.

This is the second edition of this work, with a few changes and additions.

The most striking feature of the book is its "readability"—its easy and pleasant style. This may be accounted for in part by the fact that it was originally prepared as a series of lectures to the writer's post graduate students.

There is a graceful introduction, followed by brief chapters on preliminary subjects, such as optics, the anatomy and physiology of the emmetropic eye, ophthalmoscopy, retinoscopy, and a discussion of the pupil cycloplegics, etc. The following chapters on the four great types of refractive errors—hyperopia, myopia, astigmatism, presbyopia.

There are five chapters on the eye muscles and their derangements, brief, pointed chapters. Color blindness and the visual fields come in for a short discussion, as does also the relation of functional eye diseases to general medicine.

There is a final chapter on ocular malingering, which mentions and describes succinctly the chief tests, among them the use of the author's own excellent "malingeroscope."

The author states that the work is intended for the general practitioner and the embryo ophthalmologist. This purpose he has admirably sustained by his clearness, his brevity, and by his selection of essentials from the welter of possible detail.

E. CLIFFORD PLACE.

DIABETES.

DIABETES; A HANDBOOK FOR PHYSICIANS AND THEIR PATIENTS. By Philip Horowitz, M. D. New York, Paul B. Hoeber, 1920. 196 pages. Illustrated. 12mo. Cloth, \$2.00.

Much speculative philosophy and loose thinking marks the opening chapter which attempts to deal with the causation of glycosuria and diabetes. The main part of the book is devoted to dietetic tables and recipes. It is an addition of no marked merit to the gradually increasing list of books which aspire to instruct the physician and patient in the dietetic management of diabetes. The tables and recipes will be of some value to the beginner in the treatment of this metabolic disorder. The principles followed are those enunciated by Allen and Joslin whose manuals cover the subject in a clear and satisfactory manner.

M. A. R.

PRACTICAL MASSAGE.

PRACTICAL MASSAGE AND CORRECTIVE EXERCISES WITH APPLIED ANATOMY. By Hartwig Nissen. Fourth revised edition. Phila., F. A. Davis Company, 1920. 225 pages. Illustrated. 12mo. Cloth, \$2.00.

This little manual will be of considerable service to physicians who wish to understand the subject of massage sufficiently to give intelligent directions concerning the same or even to use it themselves in case of necessity. The directions and descriptions are clear and concise and in general readily understood. However, the author's lack of command of the English language becomes annoying to the reader, there are occasional inaccuracies, and certain statements made too positively or with too much emphasis, make the book a dangerous one to put into the hands of anyone not a member of the Medical Profession: for example, the author's emphatic statement that appendicitis can be avoided if cases are treated by massage "from the first day of the symptoms."

M. L. M.

BOOKS RECEIVED.

Books received for review are acknowledged promptly in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases review notices will be promptly published shortly after acknowledgment of receipt has been made in this column.

LABORATORY MANUAL OF ORGANIC CHEMISTRY FOR MEDICAL STUDENTS. By Matthew Steel, Ph.D. Second Edition, revised and enlarged. New York, John Wiley and Sons, Inc., 1920. 284 pages. 8vo. Cloth, \$1.75.

TEXT-BOOK OF ORGANIC CHEMISTRY. By A. F. Holleman, Ph.D., F.R.A. Amst. Fifth English Edition, completely revised. Edited by A. Jamieson Walker, Ph.D., B.A., F.I.C., assisted by Owen E. Mott, O.B.E., Ph.D., F.I.C. New York, John Wiley and Sons, Inc., 1920. 642 pages. Illustrated. 8vo. Cloth, \$2.25.

CHEMICAL PATHOLOGY. By H. Gideon Wells, Ph.D., M.D. Fourth Edition. Philadelphia & London, W. B. Saunders Company, 1920. 695 pages. 8vo. Cloth, \$7.00.

LABORATORY MANUAL OF THE TECHNIC OF BASAL METABOLIC RATE DETERMINATIONS. By Walter M. Boothby, A.M., M.D., and Irene Sandiford, Ph.D. Philadelphia & London, W. B. Saunders Company, 1920. 117 pages, with 11 Tables and Charts. 8vo. Cloth, \$5.00.

PRACTICAL PREVENTIVE MEDICINE. By Mark F. Boyd, M.D., M.S., C.P.H. Philadelphia

& London, W. B. Saunders Company, 1920. 352 pages. 135 illustrations. 8vo. Cloth, \$4.00.

HYGIENE OF COMMUNICABLE DISEASES. A Handbook for Sanitarians, Medical Officers of the Army and Navy and General Practitioners. By Francis M. Munson, M.D. New York, Paul B. Hoeber, 1920. 793 pages. Illustrated. 12mo \$5.50.

PELLAGRA. By H. F. Harris, M.D. New York, The Macmillan Company, 1919. 421 pages. Plates. 8vo. Cloth, \$5.00.

NURSING MENTAL DISEASES. By Harriet Bailey, R.N. New York, The Macmillan Company, 1920. 175 pages. 12mo. Cloth, \$1.75.

COMMON DISEASES OF THE SKIN, with Notes on Diagnosis and Treatment. By G. Gordon Campbell, B.Sc., M.D., C.M. New York, The Macmillan Company, 1920. 229 pages. Illustrated. 8vo. Cloth, \$4.00.

A TEXT-BOOK OF ORGANIC CHEMISTRY FOR STUDENTS OF MEDICINE AND BIOLOGY. By E. V. McCollum, Ph.D. Second Edition, Revised. New York, The Macmillan Company, 1920. 466 pages. Illustrated. 12mo. Cloth, \$2.60.

PHYSIOLOGY AND PATHOLOGY OF THE CEREBROSPINAL FLUID. By William Boyd, Professor of Pathology, University of Manitoba. New York, The Macmillan Company, 1920. 176 pages. Illustrations. Plates. 8vo. Cloth, \$5.00.

PSYCHOPATHOLOGY. By Edward J. Kempf, M.D. St. Louis, C. V. Mosby Company, 1920. 762 pages. 87 illustrations. 8vo. Cloth, \$9.50.

COLLECTED PAPERS OF THE MAYO CLINIC, ROCHESTER, MINNESOTA. Edited by Mrs. M. H. Mellish. Volume 11, 1919. Phila. & London, W. B. Saunders Company, 1920. 1331 pages. 490 illustrations. 8vo. Cloth, \$12.00.

THE ENDOCRINES. By Samuel Wyllis Bandler, M.D., F.A.C.S. Phila. & London, W. B. Saunders Company, 1920. 486 pages. 8vo. Cloth, \$7.00.

THE FORM AND FUNCTIONS OF THE CENTRAL NERVOUS SYSTEM. An Introduction to the Study of Nervous Diseases. By Frederick Tilney, M.D., Ph.D., and Henry Elsom Riley, A.M., M.D. New York, Paul B. Hoeber, 1921. 1020 pages. 591 figures containing 763 illustrations. 8vo. Cloth, \$12.00.

SLEEP WALKING AND MOON WALKING: A MEDICO-LITERARY STUDY. By Dr. J. Sadger. Translated by Louise Brink. New York & Washington, Nervous & Mental Disease Publishing Co., 1920. 140 pages. 8vo. Paper, \$2.00. (Nervous & Mental Disease Monograph Series No. 31.)

UNTERSUCHUNGEN UEBER DIE MYELOMRANKHEIT. Von Arvid Wallgren. Uppsala & Stockholm, Almqvist & Wiksells, 1920. 151 pages. Plates. 8vo.



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MANAGEMENT OF GONORRHEA FOR THE GENERAL PRACTITIONER.

N. P. Rathbun, M. D.

Brooklyn, New York.

IF IT is a fact, and I believe it is, that gonorrhea, with the single exception of measles, is the most common and the most widely spread of all the diseases which afflict humanity, it would seem obviously apparent that such a disease, provided it presents any serious complications of consequences, should merit the most earnest and serious consideration from every member of the medical profession. Now is there anything serious about this disease? If we stop to consider among other things that practically all cases of congenital blindness, most of the cases of sterility in the male, and a large proportion of similar cases in the female; that approximately three-quarters of the major operations performed upon the female pelvic organs can be traced back to the gonococcus, it seems to me that every physician owes it to himself and to the community to know something about gonorrheal urethritis and, whether he proposes to treat it himself or not, he should have a working knowledge of a rational line of treatment in order that he may see that his patient is properly treated, and urge upon him the necessity of proper treatment and effectual cure.

I am not here for the purpose of preaching a sermon but merely wish to preface my paper with an effort to impress upon you the importance of the subject under consideration.

There is no reason in the world why the general practitioner should not be able to treat practically all cases of gonorrhea and treat them well, providing he is: first, willing to add a few items of equipment that are sometimes missing from the busy doctor's armamentarium; second, a willingness to study his cases and individualize them as he would any other condition he might be called upon to treat; and third, a disposition to treat it as a disease and not to mistreat it as a disgrace.

There is really very little required in the way of special equipment.

* Read at the annual meeting of the Associated Physicians of Long Island, Jan. 29, 1921.

I would place at the head of the list a microscope. It is no more logical to treat a case of gonorrhea without a microscope than it would be to undertake the care of a case of typhoid without a clinical thermometer. One does not need to be an expert bacteriologist. For all practical purposes the technique required to stain a urethral or prostatic smear and recognize pus cells and gonococci may be acquired in fifteen minutes. Add to the microscope a sterilizer, a few cylindrical urine glasses, a set of steel sounds, a set of silk elastic olivary bougies, a Valentine irrigator with several nozzles, a box of finger cots, a tube of sterile lubricant, and, I repeat, a willingness to study cases; and the general practitioner is equipped and should be qualified to treat gonorrhea.

In reviewing the present day standards of treatment I shall make every effort to be brief and practical and avoid so far as possible any description of highly technical procedures which after all are only indicated in exceptional cases.

The treatment of gonorrhea may well be grouped under three heads. I. The treatment of acute gonorrhea. II. The treatment of the complications of acute gonorrhea. III. The treatment of chronic gonorrhea, which is in itself a complication or usually a combination of complications

I. Since the advent of the protein combinations of silver about twenty years ago very little advance was made in the treatment of acute gonorrhea until very recently when acriflavine was added to our armamentarium. This would appear to be a definite step in progress and will be deferred to later in the paper. The treatment of this group of cases can also be grouped under three headings. I. General hygiene. II. Internal medication. III. Local treatment. Under the first heading the patient should be instructed to keep as quiet as possible; to avoid fatigue and excessive muscular effort, to forego alcohol (which is easily done in these days) and highly seasoned food. He should get an abundance of rest and avoid sexual excitement. His bowels should move freely at least once a day. While it is not fashionable in these days to give cathartics for any purpose, I believe these patients do well on a mild saline laxative every morning. He should drink large quantities of water. I tell my patients to drink eight glasses per diem. This provides an automatic urethral irrigation which is a powerful adjuvant to other methods of treatment. He should wear a suspensory throughout the entire course of the disease, in this way lessening the likelihood of a complicating epididymitis. He should be instructed to wear a suitable bag suspended from the belt of his suspensory, containing a fresh bit of absorbent cotton which should be changed at each act of urination. He should, of course, be warned of the danger of getting any pus in his eye. He should be carefully instructed not to wear a bandage around the penis or a piece of cotton under his foreskin. There is no better way of damming back the discharge and causing complications than these two common errors. Proper drainage of the urethra is quite as important as is drainage for suppuration in any other part of the body. And finally—the patient should be impressed with the seriousness of his condition, and the importance of his hearty coöperation in his treatment. He must be made to understand that proper treatment will make considerable demands upon his time, and he should be made to feel that there is nothing, no matter how pressing his business and other engagements may be, that approaches in importance the absolute necessity of devot-

ing his time for a few weeks to the care of his condition. Much of the above may sound like a lot of platitudes, but neglect of any one of these details may spell the difference between a complete cure in a few weeks on the one hand or chronic gonorrhea and many weary months of treatment on the other. II. Internal medication other than the saline laxatives referred to may practically be summed up in one single drug—santal wood oil. I doubt if there is any disease which has evoked for its treatment so many examples of polypharmacy. Nearly all the wholesale houses have one or more special formulae. Many physicians have their favorite prescriptions and practically every corner drug store has a 'number seven' or 'number twenty-nine' which is an infallible cure. Most of these combinations depend for their value upon santal oil and the other ingredients are put in for good measure and to upset the stomach. They rather remind me of the old fellow who was getting whiskey three times a day and epsom salts every morning. On the occasion of his morning medication the busy nurse to save time mixed his salts and whiskey and gave them together. The old chap objected to this and said he didn't believe the whiskey helped the salts and he was very sure that the salts spoiled the whiskey. There is nothing better than a pure preparation of santal oil given in capsules, ten minims four times daily, and I believe every case of acute gonorrhea should have this as a part of the treatment.

III. Local treatment. If the patient is seen early—in the first 24—48 hours—it is fair to attempt an abortive form of treatment with reasonable expectation of success, and it is in these cases that acriflavine provides us with a valuable aid. This may be employed in many different ways; either as an injection or as an irrigation. My associate, Doctor Gray Phillips, has worked out a plan which has been very successful in our hands. The anterior urethra is thoroughly irrigated with a solution of acriflavine, 1-4000, beginning with a very gentle stream, and later using sufficient to balloon the urethra and thoroughly clean out the folds and crevices in the mucous membrane. The solution is then forced past the cut-off muscle through the deep urethra and into the bladder. The patient voids this immediately and a few ounces of the solution are again forced into the bladder with the irrigator and he is instructed to retain this for one hour. This part of the treatment is of course carried out in the office and is supplemented by a simple anterior injection of acriflavine, 1-1000, which the patient is instructed to employ at his home twice daily. He should be carefully instructed as to the method of using the injection, which is briefly as follows: first, urinate, emptying the bladder. Bath the meatus and glans penis with warm water, wash out the anterior urethra using a bulb syringe—not one with a piston—thus ensuring lack of force. Then steadily inject about two drachms of the solution, retaining for five minutes. If all goes well the irrigations are given daily for the first week, and every other day the second week. Gonococci will often disappear after the first two or three treatments, discharge may be absent and the urine clear a few days later. By the middle of the third week if there are no symptoms, the anterior and posterior urethra are irrigated and a 26 French sound passed into the bladder, followed by another irrigation, and he is asked to report the following day. If the urine is clear, treatment is discontinued and he is instructed to report at intervals for the next week. If he remains free from symptoms and there have been no complications it is reasonable to assume that he is well.

Most cases, however, come to us a little too late to hope for such brilliant results—perhaps at the end of a week or ten days, after they have been employing ‘number seven’ or ‘number twenty-nine.’ There is no objection to trying even here the treatment above outlined. In most cases, however, I rather prefer a hand injection of protargol, $\frac{1}{2}\%$, used if possible after each act of urination. If this is not practicable at least three, or better, four times daily.

At each visit the genitals should be inspected and the patient instructed to urinate in two glasses. If the second glass is turbid and if we find in addition symptoms of frequency tenesmus, and nocturia, all local treatment should be discontinued. More errors are made at this time than at any other. Insistence upon the use of injections and irrigations at this time spells disaster. The patient should be treated as outlined under the first two headings, and local treatment resumed when the acute posterior urethral involvement has entirely subsided. There may come a time when the patient is free from symptoms except for a slight pale mucous discharge. If this is free from gonococci—and this emphasizes the necessity of the microscope—all treatment may be discontinued for a while, or a simple astringent injection substituted for the protargol. The average course of this group of cases is six to twelve weeks. The two most common complications of acute gonorrhea are acute epididymitis and acute prostatovesiculitis.

Acute epididymitis if possible should be treated in bed with the scrotum supported on a Bellevue bandage. All local treatment should be discontinued. The application of heat or cold will often give relief of pain. I am disposed to use an ice bag in summer and local heat in winter. In my hands the use of stock vaccines containing gonococci and a mixture of various strains of the ordinary pyogenic organisms has been of definite value. If for any reason the case must be treated as an ambulatory one he should be provided with a well fitting suspensory. For local use I have found nothing better than a 25% solution of guaiacol in glycerine, applied to the scrotum with a camel hair brush once daily up to the point of skin tolerance. A little later when the acute pain has subsided a 25% ointment of ichthyol seems to hasten resolution.

Acute prostatitis must be treated as a bed case. Hot sitz baths, hot rectal irrigations with a Kemp tube, occasionally opium, preferably in the form of suppositories for pain when indicated. Once in a while, as much as we dislike to do it, the patient will have to be catheterized, using a small soft rubber catheter with extreme gentleness. Some of these cases go on to a gross suppuration. Rarely, however, is surgery indicated. Most of them will rupture into the urethra and discharge spontaneously. Fortunately for all of us these very severe cases are quite the exception.

And now a few words about the management of chronic gonorrhea. Practically all of these patients, in addition to whatever else they *may* have, *do* have two definite pathological states: Scar tissue in their anterior urethrae; and pus, perhaps also gonococci, in their prostates and seminal vesicles. The first condition can be determined and localized by the use of the silk woven olivary bougie, and will be indicated by points of narrowing in the urethral calibre which will catch on the shoulder of the bougie. For the purpose of this examination the meatus must be ample. In fact no case of gonorrhea can be intelligently examined or properly treated until the meatus will admit an instrument of 30 French. If it will not do this it should be cut at the

first sitting. In addition to other advantages it will provide better drainage.

The condition of the prostate and vesicles may be determined by rectal examination, noting deviations from the normal contour. Right here let me say, however, that a rectal examination will provide mighty little information unless you are perfectly familiar with the normal contour of the prostate and vesicles, and this familiarity can only be acquired by frequent rectal examinations on normal as well as abnormal cases. This is only one more item serving to emphasize the importance of a much neglected diagnostic method which can be used to advantage in so many lines of medical and surgical work. In addition to noting such pathological conditions as differences from the normal in the size, shape, and consistency of the prostate; prolapse, and exudate in and about the vesicle walls; the contents of these organs should be expressed upon a slide by gentle massage and examined for pus and gonococci, the average number of pus cells to the field being noted on the case record. Now with the case properly diagnosed and the lesions located, we can proceed to the treatment. And the treatment is perfectly logical and perfectly simple. Restore the urethra to its normal calibre by gradual dilatation, and massage the prostate and vesicles until areas of exudate have been absorbed and the smear is free from pus cells. The dilatation should be followed by an antero—posterior irrigation of silver nitrate varying in strength from 1-1000 to 1-10,000 depending upon the tolerance of the individual. The massage should be preceded by an irrigation, filling the bladder with the solution and allowing the patient to void after the massage.

Do not dilate and massage at the same sitting. Dilate the urethra gradually and do not divulse it. If the smaller stricture measures 22 French, begin with a 23 sound, and if there is no bleeding or extensive reaction, try a 24 four to seven days later. Don't try to hurry matters too much. You will lose time in the long run if you do. Both the doctor and the patient must become reconciled in the beginning to a course of treatment which is going to require from three to six months or longer. The average patient may well be treated twice weekly—massaging and dilating at alternate visits. Internal medication, unless it be tonics, has practically no place in the treatment of chronic gonorrhea. General hygiene is, however, important, and this applies particularly to the avoidance of sexual excitement. A young man with an infected prostate is not hastening his recovery if he spends two or three nights a week in the back parlor of his fiancée's home with the lights turned low.

One important consideration in all cases of gonorrhea is the question of when a patient may be discharged as cured. And this is very frequently a most difficult problem to decide. Generally speaking, the patient should be free from symptoms; that is, have no discharge, and clear urine. This test, however, is by no means infallible. It may lead to error in either direction. A patient may have a slight discharge which is caused by over-treatment, and ceases when the cause is removed. Or, he may have an occasional shred in his urine and not be contagious. Per contra, a man may have no discharge, clean urine, and yet have latent gonococci in his urinary tract. There are two simple tests which anyone can employ and which provide a fairly reliable working basis as a test for cure. First; Pass a sound as large as the patient's urethra will accommodate, and follow this with an irrigation of silver nitrate solution, somewhat stronger than has been used in the

treatment, say 1-2000. If there is no discharge following this, or if there is a slight transient discharge free from gonococci, it is reasonable to assume that there is no active or latent infection in the urethra. Second; Examine the prostatic smear obtained on a slide from massage of the prostate. If it is free from pus cells and the urethra has been shown to be negative, give the patient a rest from treatment for one month. Repeat the test, and again in another month if still negative. If the three smears taken at monthly intervals are free from pus, it is fair to consider the prostate is also free from infection.

If the patient is not contemplating matrimony in the near future, he may be discharged as cured, and asked to report if there should be any trouble. On the contrary, if immediate matrimony is considered, our tests for cure should be rather more exacting and include cultures of the prostatic fluid and urine. More than this, when all tests are concluded, I should advise anyone (I do it myself) to have your opinion corroborated, if for no other reason than a division of the responsibility. For frankly, there are a few cases in which it is well nigh impossible to be absolutely sure of a cure.

I have outlined briefly the proper plan of procedure in the average and the usual case. There are exceptional cases that will not be cured by this line of treatment. Such cases, for example, who have infected follicles which must be burned out; granulations in the posterior urethra which must be cauterized through the endoscope, etc. Frankly, I do not believe such cases can be properly treated by the general practitioner. Their treatment involves the employment of highly technical procedures which require a large amount of time and experience to perfect which the general man has not the time to do. However, these cases are, as I say, exceptional. If your patient does not get well with the line of treatment outlined above and intelligently applied, he becomes a candidate for a more elaborate examination, and perhaps more complicated treatment.

In conclusion: I have tried to convey the following impressions: I. That gonorrhea is a common and serious malady that merits the serious consideration of every one of us. II. That the general practitioner may qualify to treat well and properly the great majority of cases. III. That in order to do this he must be willing to spend a little time studying and individualizing his cases. IV. That there are a few exceptional cases that can best be treated by men who make a special study of this line of work.



SUGGESTIONS FOR GYNECOLOGICAL DIAGNOSIS IN GENERAL PRACTICE.*

Charles A. Gordon, M. D., F. A. C. S.

Brooklyn, New York.

Diagnosis is always worth an effort. Haphazard habits encourage hasty conclusions and lead us along the easy path of occasional success. Systematized methods of diagnosis yield fairly constant results. A high average of correct diagnosis may be maintained by any one who does himself and the patient justice.

Gynecology is peculiarly well adapted for precise methods of diagnosis. A thoughtful appreciation of the history and a proper use of the direct methods of examination at our disposal are the keys to success.

It is necessary to continually remind ourselves that our patient is a woman—not a pelvis, or a uterus, but a human being who often has extra-pelvic as well as pelvic ills. The classic symptoms of pain, hemorrhage and discharge are truly gynecological, yet they may all originate in purely extra-pelvic causes. Let us illustrate briefly:

All the acute infectious diseases, particularly influenza and typhoid, may affect the menstrual function, often causing temporary disturbance, and occasionally, sterility and pelvic infections. We have essential dysmenorrhea, and the so-called functional amenorrheas and menorrhagias of uncertain origin, with absolutely no demonstrable pelvic pathology.

Many women with ptoses of the stomach, colon, or kidney, drift into psycho-neuroses,—with pelvic symptomatology perhaps, but without pelvic lesion. Frequently, too, in these cases, real pelvic conditions are undiscovered and neglected when proper routine examinations are not made.

We are all familiar with the menorrhagia of chronic nephritis and arteriosclerosis, yet such a diagnosis must carefully rule out a host of pelvic possibilities. We must always be on guard for the pruritus of diabetes, the amenorrhea of chlorosis and most important of all, the amenorrhea of pulmonary tuberculosis.

From the maze of scrambled information we have concerning the endocrines, we realize that some knowledge of the glands of internal secretion is absolutely necessary for any one who hopes to make a gynecological diagnosis. It is true that definite functions cannot be assigned to individual glands, but we know that they form a harmonious unit with the sympathetic nervous system, and we know that dysfunction or a break in the line may affect a distant gland secretion. Various disturbances in the magic circle give rise to pelvic symptoms and pelvic lesions which yield only to extra-pelvic treatment.

Just as general causes may originate pelvic discomfort, so can pelvic disease cause the gravest constitutional sequelae, such as cardiac degeneration associated with fibromyoma of the uterus, secondary anemias and metastases.

* Read before the Brooklyn Medical Society and the Greenpoint and North Brooklyn Medical Society.

The ordinary diagnosis is built upon the history and the physical examination—the one supplying the etiology, suggesting treatment, and the other showing the actual findings.

The physical examination of the patient is often simple—at times difficult. Inspection and palpation of the abdomen with digital exploration of the pelvis often appear to thoroughly cover the ground; and it is true that a great many diagnoses can be made without any history at all, yet it is equally true that a diagnosis arrived at by a careful physical examination may often be refuted by a routine history.

The gynecologist, repeatedly checking at operation the impressions arrived at by previous physical examination, eventually becomes proficient—yet he always needs a history. To every one of us the history is relatively of more importance than the physical examination, and there is no excuse for its omission.

To the average woman, physical examination may be anything from a disagreeable incident to a dreadful ordeal requiring all her courage. Call upon all your tact to put her at ease. Give her time to become accustomed to her surroundings, or to your presence in her home. Talk about anything at all while mentally classifying her. Note particularly her appearance. She may be very talkative, inclined to detail and exaggerate her symptoms; she may be modest and retiring, complaining of little, memorizing everything; or she may so worry about the coming physical examination that she answers questions any way at all.

Be calm, confident, easy. Take your time. *Let her talk* until you get a good general idea of her story; then carefully inquire as to her chief complaint and definitely establish that without question. Well-directed questions will do this, but no question must be leading, nor should it suggest an answer.

Starting, now, with the chief complaint, we try to find out how long it has existed. When did it start? How long ago? Was the onset sudden or gradual? What was she doing when she first noticed it? What relation did its onset bear to any other symptom of which she complains? Was it associated with menstruation or not? Has it been growing worse steadily? Does it disappear from time to time? Does anything influence it in any way to make it better or worse?

These answers make a connected narrative—the patient's story of her chief complaint, its course and its probable cause.

Is her pain her chief complaint? Almost always it is so, for pain, more than all other gynecological symptoms together, brings the patient to the doctor. The average woman cares more about amenorrhea than she does about excessive bleeding. Abdominal tumors of large size commonly exist without the patient's knowledge, but vulval swellings which cause pain, or difficulty in walking or sitting, soon attract her attention.

Pain, as a rule, she can accurately describe. If it is backache, let us not be too ready to assign a pelvic cause. It may be sacroiliac or muscular. Even the popular retroversion backache must be sacral or little higher; and so many retroversions exist without backache that some deny its possibility. Moderate degree of prolapse will cause sacral backache. She may have the dull aching pain of pelvic congestion or pelvic varices, the cramp-like pain of essential dysmenorrhea or flexions, the miniature labor pains of abortion, or the colicky pains of ectopic. Is the pain relieved by lying down or rest, as in pelvic congestion or uterine prolapse; or is it aggravated by lying in bed, like

carcinoma of the uterus? What relation does the pain bear to menstruation? Is it the pre-menstrual pain of flexion, the comenstrual pain of pelvic peritonitis, or the intermenstrual pain of intramural fibroid?

The ever-popular ovarian pain is a myth. The enormous ovarian cyst is unaccompanied by pain: the much-blamed small cystic ovaries are very doubtful factors in the production of pelvic pain. Lacerations of the cervix, and even carcinoma, cause no pain while confined to the cervix. Distended tubes, or large myomatous uteri cause no pain, unless, occasionally, by pressure, or, more frequently, by associated adhesive peritonitis.

Her menstrual history is now analyzed. How old was she when she began, and when did menstruation become properly established? These questions suggest endocrine disturbances, sex differences, errors of development, or delayed development. It is important to establish her type as to interval and duration of the menstrual period. Every woman is her own law. Her individual habit should be definitely ascertained and checked against later change and variation, particularly in regard to marriage and childbirth, for marriage may mean infection and trauma. She may not break her own law. What was the date of the last period? Was it as usual, and was it on time? Was the flow profuse? Has the duration of her period been gradually lengthening? Has she spotted since the menopause?

We may look for the delayed spotting of ectopic, the intermittent bleeding of acute salpingitis, the severe menstrual bleeding of submucous fibroid, the lengthening period of chronic pelvic peritonitis, the lawless bleeding of cancer or necrotic polypi.

Investigate all her confinements. How many babies has she had? How old is the youngest and the oldest. Were watchfulness and care responsible for a long period of sterility? Were her deliveries instrumental? How long was she in labor? How long in bed post-partum? Did she have fever? Sutures? If she had miscarriages, how many? Were they induced or spontaneous or followed by curettage? How long did she flow? Did she have fever? Did she remain in bed?

All this is to accumulate information which definitely points toward pelvic infection. We can always find the cause if we ask enough questions, and diagnosis is made more certain when we establish etiology.

Urinary symptoms are often of great diagnostic import. The usual questions concerning pain, frequency, duration, and disability may point toward the pain of caruncle, the frequent burning of urethritis, the incontinence of cystocele, or the frequency of cystitis and pressure. The occurrence of ureteritis should be borne in mind.

If she has a discharge, how long has she had it? Is it profuse, and was its onset sudden or gradual? Did it follow miscarriage or childbirth? Is it the foul discharge of cancer or polyp, or has it the peculiar odor of the colon bacillus or other infective microorganism? Is it the yellow pus of gonococcus or pelvic infections? Is it the thick, white, tenacious mucus of the cervix, or is it thinned out with discharge from the corporeal endometrium? Is it the brown discharge of broken-down blood, suggesting a post-partum uterus or a bleeding endometrium, or is it the serous, watery discharge so characteristic of carcinoma? Much may be inferred from a study of the discharge.

We now have the history and are ready to make a physical examination with some idea of the possibilities. The clinical history is often

so definite that further examination may be unnecessary and in some case, contraindicated.

It may seem needless to state that the first step is the examination of the abdomen. Always start with this. The grossest errors will be avoided. Masses easily felt through the abdomen may not be felt at all per vagina. A uterus reaching to the umbilicus may not be felt, or its presence even suspected, if the vaginal cervix is high and inaccessible. The harder and more solid the mass, the more readily can its edges be outlined. The fibroid uterus is more easily mapped than the pregnant uterus or the ovarian cyst.

The physical examination may be easy or hard. The best diagnostician in the world could not make an examination under the conditions which often confront the general practitioner. Make it easy for yourself. Never make an offhand examination. Set the stage properly. *Get the patient right* and it is simple after that. She must wear as little clothes or as loosely-fitting clothes as possible—never a corset. Have her on her back with knees flexed, legs rotated outward as far as possible, with heels close together, near the buttocks.

Although her position should be carefully arranged, no undue fuss or preparation should be made, as alarm always means abdominal tension.

Inspect the abdomen carefully. There may be many things to be seen. Irregularities of contour suggest the full bladder, the pregnant uterus, the fibroid or other abdominal tumor. You may see the uniformly-distended abdomen of peritonitis, or the wide, flat top abdomen of ascites. Look for dilated veins, striae, pigmentation and the protruding umbilicus. At this time look at the breast for the large veins, the tender nipple, the wide areolae, the firm secreting breast of pregnancy. Look also at the thyroid, for the amenorrhea of insufficient ovarian secretion is almost always associated with definite enlargement of the thyroid.

While talking to the patient, lay a gentle hand flatly on the abdomen, and with slowly-increasing, but sustained firm pressure, go over the field, carefully avoiding conscious use of the finger-tips. Careless pressure will result in pain and persistent rigidity.

Percussion helps the average man but little, except for the shifting dulness of free fluid. It is common to find the gas-filled intestine over solid tumors.

Practically, auscultation is of value only in the recognition of fetal heart sounds in the diagnosis of pregnancy from large abdominal tumors, for the sign is hardly available until the sixth month.

When inspecting the vulva, look for discharge, for the ordinary signs of inflammation (gonorrheal or otherwise), swelling, ulcers, and the always interesting malformations. We have seen a case of double vagina with double uterus repeatedly examined, first through one vagina, then the other, without any one discovering the anomaly.

Look at the pelvic floor; test its function by asking the patient to bear down and close up. Try to express pus from the urethra or the orifice of Bartholin's glands.

Exploring the vagina, locate the cervix; note its consistency, its size and shape, its mobility. Detecting the presence of Nabothian cysts is more important than estimating the depth of a laceration, for they are pathognomonic of endocervicitis. The relation of the cervix to the vaginal axis is particularly important in arriving at the probable position of the fundus. The body of the uterus must be found if there is

to be an intelligent appreciation of pelvic findings. It is most easily found in the anterior vaginal fornix, with the index finger against the vaginal wall. The middle finger pressing back the cervix and the external hand just above the symphysis. Remember that the normal uterus is freely movable in all directions.

The ovaries are felt in the lateral fornices by seesaw movement of the examining hands. The right side of the pelvis is more easily explored by the right hand internally, while the left hand is more practical for the left pelvic region.

Normal tubes cannot be palpated. The usual tubal mass is oval, very apt to be fixed and tender, with indefinite outline. It is more round when the ovary is part of the mass. The uniform fluctuating mass of cyst, the doughy mass of blood, or the tense pelvic exudate may be felt in the fornices.

The recto-vaginal examination may be employed to advantage when the fundus has not been found, or to map accurately a pelvic mass encroaching or pressing upon the rectum. If the cervix is felt in the rectum, then the uterus is in proper position; if the body is posterior, the cervix is not felt, but the fundus itself.

The speculum is but rarely needed, and the uterine sound should never be used. By some thought to be of value in exploration of the uterine cavity, it really tells us nothing at all but direction. Interruptions of pregnancy, perforations of the uterus and almost certain infection prohibit its use in general practice. The thermometer is often of value in the diagnosis of pelvic infections.

Diagnosis, then, is the reward of effort. We reap what we sow. The harder we try the higher our percentage of success. Methodical examinations in more or less routine fashion will solve most of our problems.



COMMENTS ON THE DIAGNOSIS OF ACUTE ABDOMINAL CONDITIONS.

Frank D. Jennings, M. D., F. A. C. S.

Brooklyn, New York.

FIRST of all permit me to express my appreciation of your courteous invitation to come here to-night. I share with many men a great admiration for your Society which is unquestionably one of our strongest organizations and is and always has been an example to medical men throughout the city. It is too bad that you can not disseminate your spirit more generally in this town as it would redound to the good of the profession.

I must apologize for appearing before you without a more formal paper but part of the blame rests with your Secretary as I was given only a little more than two weeks notice. In considering what subject to discuss it seemed to me practical to bring up for consideration diagnostic features of common abdominal conditions, with illustrative cases. Taken by and large we fall down, it appears to me, more often on the every day problems. I quite realize that this is a hackneyed field, involving our going over well travelled ground during which rather elementary details may be spoken of.

Errors in diagnosis, in my experience at least, are most often due to failure to get a good history, or failure to interpret symptoms and physical findings because a certain fixed picture is carried in mind, or in some few instances a superficial examination or none at all. It is true that with careful history taking, careful examining and careful case analysis, mistakes will occur. We are all familiar with the facts brought out by Cabot who showed by comparison with post-mortem findings that diagnoses at the Massachusetts General were incorrect in more than 50% of the cases.

In the interpretation of the manifestations of acute abdominal disease it has been my observation that in many instances the physician does not ascribe sufficient importance to pain. When pain is associated with spasticity or rigidity of muscle or vomiting the entity is estimated more or less correctly. But if pain exists alone then the tendency is to wait. Now, pain is the first symptom of all acute intra-abdominal conditions and practically never exists innocently. Be it local or diffuse, moderate or severe, it has a significance that can not be overlooked. To ignore pain in the absence of muscular spasm is to court disaster.

For example let me quote an illustrative case where that very thing was done and a life lost:

M. G.—Female—37—Italian—M., was admitted Sept. 19, 1918. Admission diagnosis—Acute Abdomen. The history states that she had been operated one year prior for extrauterine pregnancy, left salpingectomy being done. On the day prior to admission she had been suddenly seized with severe abdominal pain, below the ensiform radiating down and to left. Nausea and vomiting were coexistent.

She was seen by me shortly after admission and presented the picture of one gravely ill. The abdomen was moderately distended but

absolutely flaccid. Pain, however, was acute and referred to the left lower quadrant. Vaginal examination disclosed a large mass, size of an orange, filling the cul-de-sac, fluctuating, circumscribed. Cervix soft, patulous, bleeding (it was thought that she might be menstruating). Uterus large, anteverted and fixed.

My impression was that she was gynecological and one of the gynecological Staff concurred in this opinion, the likelihood of a cyst with a twisted pedicle or an ectopic being given preference. We, however, differed as to the management of the case, one of us feeling that she should be operated on at once because of pain, the other feeling she could wait.

Twenty-four hours later her condition was much worse, the mass was greatly increased in size and abdominal section was done. The pathology found was Acute Intestinal Obstruction due to adhesions following the salpingectomy one year previous. Enterostomy was done but death ensued in nine hours.

The case emphasizes the importance of pain as an operative indication as well as illustrating another fact which we must all keep in mind and that is this. With the great increase in abdominal surgery intestinal obstruction due to peritoneal bands and adhesions is and will be relatively common.

When called upon to examine a patient on whom laparotomy has been done my first thought is always of possible obstruction. I would like to point out that these patients will often obstruct so slowly as to deceive you. The chronic productive inflammation which brings about the obstruction is essentially a slow process and a history is frequently given of more or less difficulty in getting the bowels to move with finally an acute onset of pain and vomiting. It is not uncommon to see the culminating crash occur following a dietetic debauch. Be that as it may, keep in mind the possibility of obstruction following section.

A recent case illustrating this was as follows: G. S.—23—F.—M.—U. S. Admitted July 12, 1920. Her history states that hysterectomy had been done four years prior for Chronic Interstitial Metritis. Her health had remained good up to the morning of July 11th when at three o'clock she was awakened by sharp lancinating pains over the pubes, radiating to the right lower quadrant. Pains were irregular coming every three to five minutes. Vomiting without nausea six hours later. Enema ineffectual. Cathartic by mouth fortunately was vomited. Was seen by me late that night with the family physician who considered the condition Acute Appendicitis. There was slight elevation in temperature, pulse was normal, facies of pain. The caput coli was distended, peristalsis was audible with the stethoscope, there was no rigidity but tenderness was marked. Vaginal examination was not helpful.

She entered the hospital the next morning with a temperature of 100.4, pulse 78 and physical findings unchanged. Pain severe. Leucocyte count 13,200; Polys. 85%.

Operation revealed obstruction of the terminal ileum by a band running from the cervical stump. Band divided and appendix removed. Recovery.

Again we call your attention to pain without rigidity. Other noteworthy features were the rhythmic pains indicative of peristalsis trying to overcome an obstacle and the gurgling heard through the stethoscope denoting bowel filled with gas and fluid, always a circumstance to make one suspicious of obstruction.

We still see from time to time patients of advanced years who are acutely ill from obstruction due to Strangulated Femoral Hernia, unrecognized or recognized late. Sometimes the tumor mass is noted but mistaken for Inguinal Lymphadenitis; sometimes it is completely overlooked.

Illustrating the former is the case of C. P., age 58, admitted to the Greenpoint Hospital May 24, 1920. Her chief complaint was of abdominal pain, cramp like in character, with vomiting. The history states that one day prior to admission a small mass appeared in the right groin followed by the symptoms mentioned above. Her bowels had not moved. Her general condition was poor.

The tumor mass was about the size of a small olive and was situated one half inch to the outside of and below the pubic spine. It was hard, not tender, non-fluctuating, dull on percussion, had no impulse on coughing, was freely movable. There were numerous small glands in this area on both sides.

The Assistant on my service made a diagnosis of Lymphadenitis and so treated her until the following day when we saw the woman together and arrived at a diagnosis of Strangulated Femoral Hernia. Operation under procain anesthesia revealed a loop of ileum strangulated but, fortunately, viable and her recovery was prompt.

The error here lay in failure to ascribe sufficient importance to her history, the feeling being, as she was a little inclined to wander, that it was unreliable. Yet the story was straight and fitted the bedside findings.

You will pardon, I hope, my dwelling on the obstructions but the mortality in this condition averages from 50 to 100%. Operated in the first stage, or even early in the second stage, they have a chance. Later than that they are hopeless. The free exhibition of castor oil and citrate of magnesia is not calculated to promote their recovery yet the evil of self medication often imperils their lives before the doctor is summoned or even thought of. We can do much to educate our patients by constantly reminding them not to take cathartics in the presence of abdominal pain.

An instance of how insidiously obstruction may come on when due to post-operative adhesions is afforded by this case:

N. L.—41—F.—M.—U. S. Admitted Feb. 1, 1917. The admission diagnosis was Probable Intestinal Obstruction. The previous history had no bearing on the present trouble except a laparotomy done four years previous.

Five days prior to admission she had been seized at 11 P. M., with severe abdominal pains, cramp like in character, referred to the navel but later being felt on the right side. Nausea and vomiting were present but inconstant. She was seen by me at her home with her family physician and a tentative diagnosis of obstruction made.

Temperature on admission was 101.4 and never went above that. Pulse was 72 and never was above 100. There was a moderate degree of distention. She was not acutely sick. There was a splash and peristaltic waves could be heard. Yet enemata were effectual and lavage controlled the vomiting. Pain was variable but always cramp like.

Radiographic examinations were made both by barium enemata and barium by mouth. The interpretation of these plates led us, in conjunction with the effectual enemata, to the erroneous conclusion that she had no obstruction.

Seven days after admission vomiting and pain suddenly increased. Enemata ceased to be effectual and she was rushed to the operating room where an ileostomy for drainage was done, extensive obstruction due to adhesions being found. She died on the table.

The lesson to be drawn from this is self evident. Danger signals as plain as semaphore lights were ignored while the x-ray was played with. An incomplete obstruction became complete, giving evidence all the time with pain and vomiting. Rome burned and Nero fiddled.

The appendix continues to be a fruitful source of error though not so much as in years gone by. It must not fail of consideration in any diagnosis involving acute abdominal disease. I mention it to-night to call attention to two phases of Acute Appendicitis which have caused it frequently to be missed.

First of all the so-called pelvic appendix. We are all familiar with the common location in which the appendix is found. It is a very mobile diverticulum and when diseased gives variable symptoms dependent on its location. When in the pelvis, hanging over the brim or actually in the cul-de-sac, symptoms may be very puzzling.

As witness—J. M.—28—M.—U. S. whose previous history was negative. Two days prior to admission he developed rather severe, general abdominal pain which persisted all night long. He made himself vomit and the following day vomited involuntarily. He, however, was able to go to the theatre and to call on friends. His bowels were loose and he had some pain on voiding. He attributed his trouble to eating oyster stew.

I believe it was home brewed stew and I do not impugn it in any way though I believe that food poisonings may have more to do with acute intra-abdominal disease than perhaps we suspect.

However, on his admission the T. P. R. were 103—104—24, his face was flushed. The abdominal findings were moderate distention with slight tenderness but absolutely no rigidity in the right lower quadrant. The leucocyte count was 19,500; 85% Polys. With the existing diarrhoea we were puzzled as to whether the case was merely a colitis. Rectal examination disclosed induration and tenderness on the right side and a diagnosis of Perforated Pelvic Appendicitis was made. At operation a gangrenous appendix, perforated at its middle, was found imbedded in the parietal peritoneum of the true pelvis. Drainage was necessary and he recovered.

The lessons here are that the fixed picture of constipation and appendicitis does not always materialize as well as the great value of rectal examination. Wasn't it the late Osler who said "The difference between a consultant and a general practitioner was that the consultant made a rectal examination"? You will note also that the abdominal wall was soft, once again showing what far advanced pathology may exist without the tight rectus we associate with such trouble.

The realm of gynecology offers acute troubles which may trip us; noteworthy among them is Ectopic Pregnancy. We are all apt to carry in our minds a fairly fixed picture of this trouble, largely a heritage from text books. The long period of sterility, the skipped menses, the vaginal bleeding, all these so vitally a part of our picture are not constant by any means, in proof of which this record is submitted:

F. P.—20—M.—Italian—Admitted Dec. 7, 1919. Admission diagnosis—Acute Appendicitis. The history states that she had given birth to two full term children, one two years prior to admission

(Still born) the second eleven months prior. She was still nursing this baby. Her last menstruation was Nov. 19th, 18 days prior to admission. On the morning of Dec. 7th she was seized with sharp, lancinating pain in the right lower quadrant and fainted. Vomited once. She had had slight pains in this area many times to which no attention had been paid.

T. P. R., on admission 99.8—140—24. She complained of tenderness in right iliac region, dull pain in lumbar region, worse on right side. Face rather pale. She vomited about 3 ounces of bile stained material. Blood pressure Blood count Reds. 3,890,000—65% Hgb., Leucocytes 11,400; 68% Polys.

Vaginal examination: Introitus parous, right lateral perineal tear; cervix in axis of vagina, hard, stellate laceration. Uterus anteverted, freely movable but motion caused pain. Adnexa not palpated but there was marked bilateral tenderness, worse on right side, as well as tenderness in the cul-de-sac with sense of resistance.

So there we were—A facies and pulse of hemorrhage with pelvic findings suggestive of ruptured ectopic in a young woman who was nursing a baby eleven months old and had had normal menstruation less than three weeks before. Nevertheless, it was a ruptured ectopic, as operation proved, the right tube having ruptured about three-fourths of an inch from the cornu. The product of conception was in the tubal opening—Recovery.

Our diagnostic difficulties are somewhat increased in young children. Their peritoneum is not nearly so resistant as that of the adult and great damage was occur with few symptoms. Then, too, acute gynecologic conditions may manifest themselves at an early age bringing confusion to the surgeon. An illustration of this is herewith given:

Florence K.—aged 9—Admitted Aug. 29, 1919. Admission diagnosis—Acute Appendicitis. History states beginning of illness was four days prior to admission. First symptom noted was pain, followed by vomiting. Pain persisted but vomiting stopped. It was cramp like, occurring every ten minutes to half hour. Bowels moved with cathartics given at home. T. P. R. on admission 106—120—28. Face pinched. No cyanosis. Heart and lungs negative. Abdominal tenderness below umbilicus, more marked in right lower quadrant. Both recti tense. Blood count not done.

Operative findings were a normal appendix and a dermoid cyst of the right ovary twisted on it's pedicle—Recovery.

This condition while uncommon is by no means rare in children as I have seen two or three similar cases within a few years.

Now and then a case crops up to remind us that, in the wide variety of abdominal pathology, the structures of the abdominal wall must not be forgotten. By that is meant directly as we are all familiar with the deceptive rectus rigidity associated with pneumonia, pleurisy, and trauma of the thorax, due to afferent impulses travelling along the intercostal nerves which innervate the recti.

A patient illustrating an abdominal wall lesion came into my care several months ago.

M. H.—German—51—M. Admitted Jan. 21, 1920. Admission diagnosis—Acute Cholecystitis. Previous history had no bearing on the present illness except for Chronic Bronchitis and Emphysema. Two weeks before her admission she caught cold, really an exacerbation of the Chronic Bronchitis. She was very obese and the cough

racked her pretty thoroughly. At 6 o'clock on Jan. 21st, while standing at the kitchen sink preparing supper she had an unusually severe spasm of coughing, which terminated in an excruciatingly sudden pain just below the costal margin on the right side. She fainted and fell to the floor. Her family medical adviser was summoned and he in turn called me. I saw her shortly after eight o'clock when the findings were—Temperature (mouth) 99. Pulse 136—respirations 36. Skin cold—Face anxious.—Respirations rapid, labored with expiratory grunt. Lungs showed diffuse fine and coarse rales. Abdomen held quiet with little excursion during breathing. Marked obesity. Great deal of tension with tenderness and rigidity of upper right rectus. No mass felt. Percussion note dull.

I made a tentative diagnosis of Acute Cholecystitis and advised her removal to the hospital as I was fearful of perforation.

Her Leucocyte count on admission was 11,200; Polys. 83%. Blood pressure 128. Urine negative.

A high right rectus incision was made. When the anterior sheath of the rectus was opened and the fibres separated there was a tremendous gush of unclotted, dark blood. This was sponged away as rapidly as possible, disclosing a large cavity between the muscle and parietal peritoneum filled with blood and blood clots. At the bottom of this cavity was the superior epigastric artery spurting where it had ruptured when she coughed at six o'clock. A ligature ended the hemorrhage, the wound was closed and she recovered though there were some anxious moments during her convalescence as the anesthetic aggravated her cough seriously.

These, gentlemen, represent a few case records of what have been to us diagnostic problems, failures and successes. I trust their relation has not bored you and hope it may help you. The lot of the general practitioner is infinitely harder than that of the hospital practitioner. The one sees the case at its inception, not clear, not fully developed, the other sees it fully developed but not necessarily any clearer.

If we have succeeded in emphasizing that rigidity is not an essential concomitant of acute diseases of the belly, that pain is always a symptom demanding attention and respect, that the pelvic appendix does not behave in the classical way, that the stereotyped, text book description of ectopic is often seen in the case that isn't ectopic, that lumps in the femoral region in women of advanced years, no matter how trivial or innocent they may seem, are generally femoral hernias, that lesions of the abdominal wall may present symptoms suggestive of intra-abdominal disease, then the evening will not have been wasted.

* Read before North Brooklyn Medical Society, Sept. 28, 1920.



INAUGURAL ADDRESS.

Arthur H. Bogart, M. D., F. A. C. S.

MEMBERS OF THE MEDICAL SOCIETY OF THE COUNTY OF KINGS:

LADIES AND GENTLEMEN:

Twelve months ago through the untimely death of my predecessor, Dr. Lee, I became Acting President of this Society, and despite my shortcomings during the past year it was your pleasure at the annual meeting in December to elect me President. I wish therefore to take this my first opportunity to express my appreciation of the great honor which you have conferred upon me, and to solicit your co-operation in the work of the coming year.

In accepting the responsibility of this office, however, I am not unmindful of the fact that it comes at a time in the history of the society when the management of its affairs will demand the most careful thought and consideration not only of myself but that of my advisors in the Council as well; and I can assure you that I shall not hesitate to seek such advice whenever it seems necessary.

The next two years promise to be very active ones in the history of the Society, and it has occurred to me that certain outstanding features of the work as planned might well be placed before you at this time, so that every one may be familiar with the situation and be ready to render such assistance as may be necessary to carry them out.

CENTENNIAL CELEBRATION.

In 1922 the Medical Society of the County of Kings will celebrate its one hundredth anniversary, an event second only in importance to its foundation. In order that this celebration shall consist of something more than a passing show soon to be forgotten, it has been proposed to seize this most favorable opportunity to make an attempt to place the society on a firm financial basis for many years to come. We of the present generation have done nothing comparable with the achievements of the past generation which gave us this splendid building and equipment, and if we are to maintain the traditions of the past we cannot hesitate now to assume this responsibility.

In anticipation of this most important event one of my predecessors, Dr. A. M. Judd, appointed a committee consisting of the ex-presidents to take up and consummate this work; and already plans are under way to launch a drive to provide an adequate endowment fund. This is a magnificent undertaking for a worthy cause, and will be launched at what your committee considers the psychological moment, but in order for it to be a success it will require the earnest endeavor of every member of the society so that at the centennial banquet it may be announced that the goal has been reached.

Concerning the plan and scope of the coming celebration (outside of the endowment fund). I am not in a position to speak at this time;

* Delivered before the Medical Society of the County of Kings, Jan. 18, 1921.

doubtless the chairman of the committee, Dr. Campbell, will give you full details at some future date when they shall have been completed.

It is needless to say that I am heartily in accord with this movement, and respectfully request the support not only of the profession but of the laity as well. In this connection permit me to suggest that if there be any factional feeling among the members of the society that they be suppressed now, and for all time, and that we all join hands at this critical moment in our history toward the fulfilment of this one object which will redound to the credit of all and stand as a lasting memorial to the Medical Profession of Kings County.

MEMBERSHIP.

There are in Kings County some two thousand, two hundred and eighty members of the Medical Profession. Of these about one thousand in round numbers are members of this society. When we consider the many advantages which the society has to offer and the minimum cost as compared with similar organizations there seems no reason why every eligible man and woman in Kings County should not become a member. In order to point out these advantages to those who are not members it is the purpose of the Chairman of the Membership committee, Dr. Mathews, to institute a campaign for new members at once. It should be brought to your attention at this time that Dr. Mathews whose work on this committee has been so successful in the past has again kindly consented to take up the work, having declined the nomination for censor in order to do so. If for no other reason therefore he should receive the support of every member of the society.

It is the ambition of this committee to double the membership within the next two years. This is possible and if every member will take it upon himself to bring in one new man there can be no doubt of the final result. I am sure you will all agree that this is a very important work and means much to the society. I hope, therefore, you will all become interested and join heartily in it to the end that every eligible man and woman may become enrolled.

EDUCATIONAL.

During a recent visit to the Mayo Foundation I was impressed by the fact that on every afternoon a lecture had been arranged for and was given by one of the staff on some important Medical or Surgical subject. These lectures were well attended by visiting Physicians and Surgeons, and it occurred to me that perhaps the educational advantages of this institution might be extended along the same lines, so that at least once a month we might arrange to follow this plan of offering a lecture or demonstration, to which the entire profession would be invited.

With this end in view I have secured the co-operation of Dr. H. P. Langworthy who will give an illustrated lecture on the Diagnosis and Treatment of Diseases of the Genito-urinary Tract in the upper lecture hall on Thursday evening January 27th at 8.30 P. M. A notice of this lecture has been sent to every member of the profession in Kings County, as well as to the members of this society.

I quite appreciate the fact that this is an innovation, and as such depends entirely for its success or failure upon the interest which may be manifested in it by the profession. If they fail to support and ap-

preciate this movement it will be discontinued. If on the other hand it is favorably received I see in it an opportunity to offer to the profession of Kings County educational advantages hitherto uninjoyed.

LEGISLATION.

I fully realize that the Medical Society of the County of Kings is by virtue of its constitution a scientific body, and as such is limited in its political activities, and under no circumstances should it lay itself liable to be classed as a purely political organization. Nevertheless it should be one of the duties of the County Society to study and, if necessary protect the interests of its members and the public health.

Within the past few years there has been and is now being made an attempt to introduce, and pass, legislation in the State of New York, which is not only inimical to the best interests of the profession but also of the public at large.

Heretofore the Medical Profession has not been lacking in its care and watchfulness of the public health. If this has been true in the past it is equally true of the future, and I am sure that if given time and opportunity the profession of this State is thoroughly competent to meet the situation and provide adequate care for the public. It must, however, be alive to the steady evolution that goes on in society and must keep step with the general advances of civilization while it arranges itself firmly against spurious reform. It must lead and not blindly obstruct. To this end intelligent study of all so-called welfare legislation is essential.

The Workman's Compensation Law has been in operation some years, and as at present administered is anomalous in its relation to the practice of Medicine and Surgery, and is in need of revision.

Recommendations have been made by a committee of the New York County Society to the effect that employes shall have the right of choosing their own Physician, and that the approval of a bill by the Commission for services rendered filed with the County Clerk shall have the same weight in law as a judgment.

I believe these recommendations should be indorsed by this society, for the reason that they are equally beneficial to the public and Doctor as well.

DIRECTORY FOR NURSES.

The Medical Society of the County of Kings located in this building, which is in the geographical centre of the city is the headquarters of the medical profession in this county. It is therefore the natural place to maintain an up to date registry for nurses. It should be possible for a doctor to obtain through this directory trained or practical nurses at any time of the day or night.

As the situation now stands there are a number of registries scattered all over the city, and I feel sure that it would be much more satisfactory if they could be concentrated here so as to be readily available.

Dr. Charles H. Goodrich has consented to take up the work of this committee. I hope he may have the support and assistance of the entire profession in order that we may have an up to date registry which will be of benefit not only to the society but to the doctors, nurses, and public as well.

It should be possible to educate the doctors, nurses, and public of Kings County to the realization that *this is* medical headquarters and as such is able to offer them many advantages which cannot be obtained elsewhere.

STATE SOCIETY MEETING.

It may be in order for me to call your attention to the fact that the Medical Society of the State of New York of which Dr. J. Richard Kevin is President will meet in Brooklyn in May of this year. This again is an event which has never occurred in the history of Brooklyn, and already plans are being completed by the president and his various committees to make this a memorable occasion.

The 23rd Regiment armory and this building will be utilized for the purposes of this meeting, and once more we have the opportunity for placing Brooklyn on the map. But in order to do so it will require the combined efforts of the profession of Kings County. I hope that each and every member of this society will take pride in doing everything possible to make this meeting a conspicuous success in the history of the state society.

PROFESSIONAL GUILD.

The organization of the Professional Guild, representing as it does the allied professions of medicine, dentistry, and pharmacy was a pioneer movement in this county, and a step in advance; and its work during the past year has been productive of most excellent results. Conducted along similar lines in the future this institution is worthy of our continued support.

CONCLUSION.

Finally, Ladies and Gentlemen, let me once more impress you with the fact that the medical profession of Brooklyn is confronted this year with far greater problems than ever before, the satisfactory solution of which will require the combined efforts of each and every man and woman in the county society. In addition to those of a local nature, there are problems which involve the entire profession of the State and Nation, and it behooves us of Kings County in the future as in the past to set an example which may stimulate other organizations to assume their share of the burden. During the coming year it will be my pleasure and ambition to do whatever in me lies to help in the solution of these problems, and, without regard to clique or faction, to promote the best interests of the society as I see them, and I respectfully request your full support and co-operation in order that our plans may be realized.



MINUTES OF THE TWENTY-THIRD ANNUAL MEETING
(SIXTY-EIGHTH REGULAR MEETING) OF THE AS-
SOCIATED PHYSICIANS OF LONG ISLAND HELD
JANUARY 29th, 1921.

THE Twenty-third Annual Meeting of the Associated Physicians of Long Island was held at the Library Building of the Medical Society of the County of Kings, 1313 Bedford Avenue, Brooklyn, N. Y., January 29th, 1921, and was called to order by the President, Doctor Henry Goodwin Webster, of Brooklyn, N. Y., at three-thirty o'clock P. M. there being more than a quorum present. As the minutes of the October 1920, meeting had been published, they, by general consent, were not read.

The Membership Committee presented the following names of applicants for the action of the Society, the names having been printed upon the notices for this meeting:

Proposed by Dr. Frank Dormer Jennings,
Dr. Edward V. Kennedy, 75 McDonough Street, Brooklyn
N. Y., Long Island College Hospital, 1919.

Proposed by Dr. Albert M. Bell,
Dr. A. J. Davis, Hicksville, N. Y., University of Pennsylvania, 1909.

Proposed by Doctor Howard Morton Phipps,
Dr. D. Stoddard Dooman, Garden City Hotel, Garden City,
N. Y., College of Physicians and Surgeons, New York, N. Y.,
1918.

Proposed by Dr. James W. Ingalls
Dr. Ellis Bonime, Forest Hills, N. Y., College of Physicians
and Surgeons, New York, N. Y., 1905.

Proposed by Dr. Luther Taylor Jackman,
Dr. Herman G. Wahlig, Sea Cliff, N. Y., College of Physi-
cians and Surgeons, New York, N. Y., 1894.

Proposed by Dr. James Cole Hancock,
Dr. Russell F. Maddren, 1066 Lincoln Place, Brooklyn,
N. Y., University of Oregon, 1917.

Dr. Ralph Farnworth Harloe, 711 Beverly Road, Brooklyn,
N. Y., Long Island College Hospital, Brooklyn, N. Y., 1918.

Dr. Francis Tweddell Great Neck, N. Y., College of Physi-
cians and Surgeons, New York, N. Y., 1907.

Dr. Morris Sherman, 2959 West Thirty-second Street, Brook-
lyn, N. Y., Long Island College Hospital, Brooklyn, N. Y.,
1915.

These names were ordered by the unanimous vote of the Society, to be added to the roster.

Doctor E. S. Moore moved that Doctor James Seth Cooley, of Mineola, who had resigned from the Society be made an Emeritus Member. This motion was seconded. Doctor H. A. Houghton stated that he wished to amend the motion by adding the word "permanent." The amendment was accepted by Doctor Moore and the motion was passed as amended.

Doctor William H. Ross of Brentwood, N. Y., Chairman of the Publication Committee, presented the following report:

"The Publication Committee offers the following report for the year 1920:

Two things will interest you, the cost of the Journal and the fact that it is read in over half of the states of the Union and in thirty foreign countries.

The cost of the Journal for 1920 is \$1240.00 more than for 1919. We received for advertising in 1919 \$3347.00 and in 1920 \$3375.00, nearly the same amount. The increased cost, in round numbers, \$1200.00 shows the increased price of paper and printing for the year.

The income of the Association has been sufficient and the Treasurer will tell you that all bills are paid.

The Kings County Medical Society Library, a great library in our midst, receives, regularly, as a gift, all the journals, now 196 in number, sent as exchanges to the Long Island Medical Journal. This journal, through its review books, and exchanges, is the largest and most important single feeder this library has. While its circulation in number of copies is somewhat limited, through the medium of exchange it reaches a wider territory than many of the journals of the country with much larger circulation figures. In addition to its distribution throughout Long Island and New York State, it is sent to over half the states in the Union and to thirty foreign countries.

Exchange and library copies of the "Long Island Medical Journal" are being sent to the following states and possessions of the United States and of foreign countries:

United States	Tennessee	England
Arkansas	Virginia	France
California	Washington	Greece
Colorado	Philippine Islands	Honduras
Connecticut	Porto Rico	India
Delaware	Total 25	Italy
District of Columbia		Japan
Georgia	Foreign Countries	Mexico
Illinois	Argentine Republic	Norway
Indiana	Australia	Peru
Kentucky	Belgium	Portugal
Maryland	Brazil	Roumania
Massachusetts	Canada	Scotland
Michigan	Chile	South Africa
Minnesoat (Minnesota)	Colombia	Spain
New York	Cuba	Sweden
North Carolina	Central America	Switzerland
Ohio	Denmark	Uruguay
Oregon	Ecuador	Venezuela
Pennsylvania		Total 31

Abstracts of articles in the Long Island Medical Journal have appeared in a number of the foreign periodicals with which it exchanges. These facts should lead writers to give greater consideration to this journal when publishing their papers. Anything that is done to further advance the character and influence of the Long Island Medical

Journal will not only redound to its advantage but will also reflect credit upon those whose work and writings are recorded in its pages.

It may not be generally known that the Long Island Medical Journal at one time practically saved the Kings County Medical Library. When the "powers" decreed the discontinuance of the old Brooklyn Medical Journal the library authorities saw no hope of successful continuance. Then the Associated Physicians came to the rescue. Doctor E. H. Bartley, who was President at the time, went ahead with the arrangements. It has been a contributor ever since, and of late is giving a very large measure of support to the Library.

Then is it not worth while that the medical interests of all Long Island be drawn into closer affiliation with the library of the Kings County Society Medical Library? We own 196 journals and a number of books now deposited in this library. We have an interest, therefore, and we would like to have some standing, we mean that we should have some recognition, some incentive, in some way, to enlist the interest of the Island men in the support of the Library. Some representative board is needed and the Associated Physicians should have representation on this board. This would be better for many reasons than that the county societies of the Island should be represented. The Publication Committee feels sure that a committee of, at least, one from each county on the Island outside of Kings County, would be received in a friendly way, and with a view to permanent membership on the Library Board. Your Publication Committee, therefore, suggests and recommends that the President of this Society appoint a committee of three, one from Suffolk, one from Queens and one from Nassau to confer with the Directing Librarian and those, officially in charge of the Library; this special committee to be appointed for a period of three years, or until their work is done, if finished sooner. Their special work will be to represent and consider the mutual relation of the Library and the Island men. One further thing, this same committee could consider and confer with the Library Authorities on the question of establishing a branch of the Library on the Island, at any satisfactory point, possibly in Jamaica.

Our advertising, as you know, has been unsolicited. Two members of this Society have secured two advertisements, giving the Journal an income of \$300.00 a year. It is so unusual for any member of this Society to show such activity that we can not help expressing our real commendation and wish that others may do likewise. If even 105 of the members of this Society were like minded we would have money enough to publish the greatest journal in America. Everybody would like to see the journal grow into a great medical paper, a scientific publication, knowing no sectarianism, recognizing every legitimate contribution to the progress of medicine; and, also, the economic betterment of the profession. It would only require a few more men actively interested in the future of the Journal and devoted to a consideration of its wants and needs to make possible a broader development.

This year completes the fifteenth year of the Journal's life. The Committee feels that it must have been a successful year, because so few men have spoken disparagingly and, occasionally, one has commended it.

In closing, the Committee wishes you to remember that the Long Island Medical Journal has a larger circulation, by exchanges, than 99% of the journals of the States. It is one of the chief channels,

therefore, of spreading medical literature in this country, and is not surpassed, in this respect in the world, because of its foreign exchanges. And yet it is only a by-product of this Society. Signed W. H. Ross, E. S. Moore, Frank Overton, James Cole Hancock, Members of the Publication Committee.

It was moved, seconded and carried, that the Report of the Publication Committee be received, filed and that the recommendations be adopted.

Doctor William Browning moved, and the motion was seconded and carried, that a copy of the book lists issued from time to time by the Library of the Medical Society of the County of Kings be sent by the Secretary of the Associated Physicians of Long Island, at the Society's expense, to every member of the Associated Physicians of Long Island who does not now, regularly, receive it.

The Historical Committee presented the following report:

As the Annual Meeting of our Association is about to take place, we are reminded that a report of the work accomplished during the year should be presented.

Our thoughts naturally tend towards those who have been active members of our Association, and who have laid down the burden of life, and all that remains is the work they have performed in behalf of suffering humanity.

In token of respect due their memory we hereby record their names:

Date of Membership	Date of Death
1906-1920 Ver Nooy Wayland Weed M. D.	February 26, 1920
1901-1920 John Aloysius Lee M. D.	April 4, 1920
1898-1920 Louis Nott Lanehart M. D. ex-President	April 25, 1920
1906-1920 Frank Edwin Brown M. D.	June 23, 1920
1900-1912 William Austin Tomes M. D.	June 28, 1920
1918-1920 James Aloysius O'Reilly M. D.	October 18, 1920
1906-1914 Oswald Joerg M. D.	November 4, 1920
1899-1920 Walter Benajah Chase M. D.	November 15, 1920
1906-1920 Francis Augustus Schlitz M. D.	November 28, 1920
1903-1920 William J. Burney M. D.	December 7, 1920
1916-1920 Moses Kahn	

During the year 1920 the names of 37 Physicians were presented for membership representing the following Universities and Medical Colleges:

University and Bellevue	5
University of Pennsylvania	2
University of Virginia	1
University Johns Hopkins	2
University Fordham	1
University New York	2
University Toronto	1
University Buffalo	1
University Berlin	1
Albany	4
Long Island College Hospital	5
College Physicians and Surgeons N. Y.	4
New York Homeopathic	4

College Physicians and Surgeons-Baltimore	1
Bellevue Hospital Medical College	1
Jefferson Medical College	1
New York Eclectic Medical College	1
Total	<u>37</u>

During the year the work of the Historical Committee has continued as in years before, your Secretary has been ever ready to assist the Committee, and the Long Island Medical Journal has published short obituaries of our deceased members, for this and many other considerations your Committee is grateful.

And now wishing your Association prosperity in the year to come, with good fellowship on every side. It should mark an eventful year for 1921.

WILLIAM SCHROEDER M. D.
Chairman of the Historical Committee.

The Secretary presented the following report:

Mr. President, your Secretary has to report the total membership of the Society, at the present time, as 879, 250 from Queens, Nassau and Suffolk Counties and 621 from Kings County. During the year 34 new names have been added to the roster. There have been 8 deaths, 10 resignations and 30 members have been dropped for arrears.

Respectfully submitted,
JAMES COLE HANCOCK, Secretary.

The Treasurer presented the following report:

January 1st, 1920 to January 1st, 1921.

Receipts

Balance on hand January 1st, 1920	\$ 464.78
Received from dues	3084.25
Received from advertising	3370.20
Received from dinners	571.80

Total\$7491.03

Expenditures

Crist and Company—Journal	\$4180.76
Postage	84.73
Dr. Webster—Salary and Stenographer.....	1440.00
Whitfield—plates	84.01
Dr. Webster—petty cash	74.25
Postage	35.75
Treasurer	120.00
Hunter Collins and Co.	291.40
Dinners	589.25
Secretary—postage, etc.	45.65
Miscellaneous	113.65
Balance on hand	431.58

\$7491.03

EDWIN S. MOORE, Treasurer.
January 1st, 1921.

The Treasurer's accounts having been duly audited by the Auditing Committee of which the following were members: Drs. W. A. Hulse, H. D. Schenck and J. C. Kennedy, the Treasurer's Report was ordered received and filed.

Doctor William H. Ross moved, and the motion was seconded and carried, that the Associated Physicians of Long Island go on record as opposed to the present form of drug control by the State and as favoring legislation that would bring all forms of drug control under the provisions of the Harrison Narcotic Drug Law, and that the Secretary be instructed to inform the Long Island legislators of our stand in the matter.

The Nominating Committee, Drs. M. M. Kittell, W. Browning and J. S. Waterman recommended that the following be elected officers of the Society for 1921 and, there being no nominations from the floor they were elected, unanimously, by the Society:

President, Dr. Harris A. Houghton, Bayside, N. Y.

First Vice-President, Dr. Joshua M. Van Cott, Brooklyn, N. Y.

Second Vice-President, Dr. Hugh Halsey, Southampton, N. Y.

Third Vice-President, Dr. Arthur David Jaques, Lynbrook, N. Y.

Fourth Vice-President, Dr. L. Howard Moss, Richmond Hill, N. Y.

Secretary, Dr. James Cole Hancock, Brooklyn, N. Y.

Treasurer, Dr. Charles Lucius Stone, Brooklyn, N. Y.

A vote of thanks was, unanimously, tendered Doctor Edwin Syme Moore of Bay Shore, N. Y., for his services as treasurer for the past seven years.

Doctor Tasker Howard presided at the Scientific Session.

Dr. Nathaniel P. Rathbun, of Brooklyn, N. Y., read a paper entitled, "The Modern Treatment of Gonorrhea," which was discussed by Drs. Gray Phillips and Henry H. Morton, the discussion being closed by the author.

Dr. Henry T. Chickering, of Manhattan, N. Y., read a paper entitled "The Diagnosis and Treatment of Pneumonia."

Dr. Charles Eastmond, because of the lateness of the hour, withdrew the paper he was to read, entitled, "Lantern talk: Characteristic Radiographic Shadows and How to Interpret Them."

The dinner was attended by about seventy-five guests and members and was very much enjoyed. Interesting addresses were made by Dr. James P. Haney, Rev. J. Percival Huget D. D. and Dr. Robert T. Morris.

After the dinner the Secretary was made very happy when Doctor H. G. Webster, with a few very complimentary and gratifying words, presented him with a pair of handsome silver candle sticks and a most useful and ornamental travelling clock. These he said were presented by the Association of the ex-Presidents and were given as a recognition of the Secretary's twenty years of services to the Society. The Secretary made an effort to tell how greatly he appreciated the gifts but had to give it up and he is firmly convinced that the ex-Presidents never will know just exactly how he feels in the matter. He, himself, knows, however.

Doctor Webster, at the end of the speaking, introduced the new President, Doctor Harris A. Houghton, who declared that, if there was no further business to be attended to, the meeting stood adjourned.

JAMES COLE HANCOCK.



EDITORIAL



AN ELEVENTH COMMANDMENT.

WITH no desire to be irreverent one nevertheless feels, on reading the copy of the Narcotic Drug Regulations dated December 27th, 1920, and received February 1, 1921, that the man who is big enough to announce "I promulgate the following rules," should be classified along with Moses and Aaron at the least. There is a special reason for mentioning Moses and Aaron—they lived a great many years ago, they acquired tremendous autocratic power, and they are credited with being deputies of the Almighty in the conduct of human affairs. If one turns to Rule 12 he understands where the simile is apt, for if ever an autocratic as well as archaic pronouncement was promulgated it surely is here. Without adequate warning the physicians and druggists of New York State find themselves forbidden either to prescribe or dispense any preparations of opium or cocaine unless the triplicate prescription blanks are used. Extended inquiry shows that the first intimation of the need for triplicate prescription blanks is contained in this belated notice, and that very few know where they can be procured unless it be from Albany by mail. One druggist had had one presented to him. One physician out of twenty spoken to had a pad of them.

An analysis of this arbitrary and unnecessary order reveals some conditions that are well-worth thinking over. The Federal law requires that the physician shall write his prescription for narcotics upon a blank upon which, among other things, his name and address are printed. The triplicate blanks are at variance with this Federal regulation. Not only is there no place to print them, but the form is supplied in such a way that one cannot print on it.

The Federal law requires the druggist to file his prescription in one way. This new State regulation requires him to keep it in another file. How can he keep one prescription in two files? And thirdly, although physicians are forbidden to prescribe and druggists to dispense *Mistura Pectoralis Stokes* unless the triplicate prescription blank is used, any citizen may purchase from any druggist four ounces of Stokes expectorant over the counter without a prescription!

These three inane contradictions supply in themselves the strongest reason for the abolition of a Commission which ever since its inception has added to the burdens of honorable, upright, conscientious physicians, and has carefully avoided interfering with the commercial privileges of the manufacturers of narcotic-containing proprietaries.

It is difficult to see what the Commission has accomplished besides expending large sums of the State's money for salaries. Its abolition is essential on several grounds, not least of which has been the failure of its chief function—the control of illicit narcotic traffic.

H. G. W.

MEDICAL LEGISLATION

THE formation of the Professional Guild of Kings County has proved to be the first forward step in an aggressive campaign formulated by physicians to insure better conditions under the public health laws. Organized in the beginning for the purpose of bringing together an effective organization to meet the increasing number of attacks upon the Medical Practice Act and the various chapters of the public health laws, the idea has grown and spread until guilds have been established in all of the Long Island counties as well as throughout the state, and in other states.

At a recent meeting of the Directors of the Kings and Queens Counties Guild the matter of Workmen's Compensation was very thoroughly discussed from every angle. The New York County Medical Society had already brought forward an amendment to the existing Workmen's Compensation Law designed to remedy an evil which has grown to threatening proportions—that of the control of the surgical care given to working men by the insurance carriers. A careful discussion of the amendment offered by the New York County Medical Society resulted in the conviction that while the object desired was most laudable the steps proposed were so radical as likely to fail because of the opposition they were bound to excite within the Industrial Commission itself. For this reason, and because of its earnest conviction that the Workmen's Compensation Act must be changed in order to provide better conditions for workmen and physicians alike, the Guild has submitted two amendments looking toward a free choice of physicians by the workman and the periodical adjustment of the minimum fees to be paid for professional attendance—two essentials that must be hammered home until a proper adjustment is obtained.

Like all efforts of this kind the Guilds are not looking to obtain a perfect readjustment of a vexatious situation all at once. The point to be emphasized is that with the influence that they now wield much may be accomplished by insistence and the submission of rational demands. The guilds have proven their value, and as time goes on they will undoubtedly demonstrate the wisdom of combining all legislative questions affecting public health matters, and placing the responsibility for proper legislative accomplishment in their hands.

The proposal that the State Medical Society shall conduct a separate legislative bureau, while natural, is a tardy recognition of duties that should have been systematized long ago. The limitations of the State Society are three-fold—they represent only a part of the allied professions; their finances are necessarily limited; and their councils are not unified. The guilds represent medicine, dentistry and pharmacy alike, are organized to unite these professions for economic purposes only and already wield an influence that has succeeded in making its impress at the state capitol.

We venture the prophecy that as time goes by the wisdom of placing the scientific side of medicine in the hands of the State Society and its allied organizations while the Guilds cooperate on the economic side, will be fully demonstrated.

H. G. W.

A BONUS FOR BABIES.

MUST the mothers and fathers of America be paid a bonus to reproduce themselves? This sounds like a silly question, does it not? And yet the State of Massachusetts is facing a proposition whereby several hundred thousand dollars would have to be appropriated to pay for prenatal and post-partum care of any woman in the State who chooses to ask for this service. House of Representatives Bill 10925 introduced in Congress by Mr. Towner proposes to appropriate this year \$480,000 to be paid in shares of \$10,000 each to any State that will appropriate a like amount for maternity benefits.

Doubtless the proponents of this scheme will deny that anything is intended except a desire to educate expectant mothers so that their babies may be better babies, and the State benefit thereby. The League of Women Voters is said to be the active force behind these propositions. It has been most unkindly hinted that the members of the League themselves are not likely to benefit by the money, but the idea is the same old notion of placing in the hands of public authorities certain powers which shall gradually be extended until the old ideal of health insurance shall be attained. Mr. Andrews, the general manager of the A. A. L. L., is a man who is so sedulous that the truth only shall be told by other people that one must be extremely careful in making statements that will not bear most critical analysis. For that reason one must not even hint that the same forces which have stood behind health insurance stand behind the proponents of this maternity benefit legislation. Brer Rabbit once remarked sententiously when he saw the tip of Brer Fox's tail projecting beyond the corner of the house—

"The spot whereat you spilled the grease
Right there you're bound to slide;
And where you see a bit of hair
You'll likely find the hide."

It is an axiom with professional legislators that if you can't get the whole hog you may at least get a part of him, and that if you can secure the adoption of a seemingly harmless provision it can be amended and amended until one's full desire is obtained. This country is overburdened with taxation which has resulted from wasteful extravagance and short-sighted policies. Of course an appropriation of \$480,000 by Congress isn't going to raise the Federal tax rate much, and Massachusetts could probably afford an extra million or so without being crushed by this additional financial burden, but what the citizens of this country are entitled to know is this: What practical benefits are to accrue from this expenditure of money? Is it proven beyond peradventure that this is a beneficent thing? Will the benefits accrue to the right people? Is it necessary to bribe women to become mothers? These questions are of vital interest, especially when they are balanced against the failure of Americans to provide for ordinary education or to interest themselves as a nation to see that the teachers, upon whom the future progress of America depends, are adequately paid so that the illiteracy which the war demonstrated is overcome, and so that the right kind of men and women shall be attracted to the schools as teachers. The vital problem of this country today is being overlooked because the little old red schoolhouse which was the pioneer of our real greatness, is being neglected while fads of an impractical

nature are being exploited at the public expense. We deport the representative of Soviet Russia, but we take no steps to determine the character and the motives of those in our own community who are pushing forward these inconspicuous breast works of an attack which threatens the overthrow of true representative government.

Write to your representative at Washington and tell him what you think about bonuses for babies.

H. G. W.

THE EDITOR,
Long Island Medical Journal.

Sir:

I find that in the recent booklet issued by the Brooklyn Diagnostic Clinic my name appears as being in charge of their radiographic work. As I am no longer connected with the Brooklyn Diagnostic Clinic may I ask you to give publicity to this statement through your esteemed Journal?

Your very truly,

WILLIAM H. STEWART,
222 West 79th Street,
New York City.



Society Transactions

MINUTES OF A REGULAR MEETING OF THE MEDICAL SOCIETY OF THE COUNTY OF KINGS, JANUARY 18, 1921.

The meeting was called to order at 8.40 p. m. Dr. Bogart was in the chair. There were about 70 members present.

The minutes of the previous meeting were read and approved.

A recommendation of the Council that the Society authorize the president to appoint a committee to co-operate with the Brooklyn Institute of Arts and Sciences in the promotion of public matters of mutual interest was read and accepted.

REPORT OF THE COUNCIL

The council reported favorably upon the following applications for membership:

The following candidates have been accepted by the council:

Dec. 1920: Joseph Abrams, 176 Lewis Avenue, Univ. & Bell, 1919; R. S. Fowler; John Horni. Adolph V. P. Fardelman, 1402 Buchwick Avenue, L. I. C. H. 1916; W. F. Campbell; G. H. Reichers. Manning C. Field, 98 Remsen Street, P. & S., N. Y., 1916; F. H. Richardson; W. H. Field. Victor Giantieri, 163 Washington Park, Univ. of Pa., 1917; M. F. R. Savarese; Memb. Com. Max Mensch, 962 St. Marks Avenue, Univ. & Bell., 1915; P. E. Wesenberg; E. G. Hynes. Charles F. Nicol, 442 Gates Avenue, P. & S. Balt., 1913; John H. Flynn; J. J. Collins. J. Edwin Shack, 666 Hendrix Street, L. I. C. H., 1916; J. B. Plotkin; M. J. Dattelbaum. William E. Skidmore, 395 Park Place, L. I. C. H., 1913; W. A. Jewett; S. B. Schenck. Hyman Teperson, 1480 Eastern Parkway, L. I. C. H., 1916; J. B. Plotkin; M. J. Dattelbaum. Nov. 1920: Joseph L. McGoldrick, 434, 73rd Street, Cornell, 1916; C. E. Rynd; T. A. McGoldrick.

ELECTION OF MEMBERS.

Nov. 1920: Harry D. Bucalo, 164 Suydam Street, Virginia, 1915; C. Giovinco; F. D. Jennings. John Casagrande, 436 Clinton Street, L. I. C. H., 1914; H. L. Wagener; C. F. Pabst. Isaac Cohn, 84 Union Avenue, Univ. & Bell., 1914; David Last; A. J. Sumner. Peter G. Fagone, 22 Arion Place, Univ. & Bell., 1914; J. B. L'Episcopo; Memb. Com. Merrell N. Foote, 145 Gates Avenue, P. & S., N. Y., 1916; W. A. Sherwood; J. T. Pilcher. Thurman B. Givan, 61 Pierrepont Street, Vanderbilt, 1914; C. H. Laws; H. B. Matthews. Abraham A. Goldstein, 8720 102nd Street, Univ. & Bell., 1918; R. Schillinger; Harry Apfel. John F. Hennelly, 419 Park Place, Fordham, 1920; L. T. Fricke; Memb. Com. Emilio F. Iorio, 1810 Eastern Parkway, P. & S., N. Y., 1913; M. Lombardo; Memb. Com. Morris N. Josell, 6 Lewis Avenue, Univ. & Bell., 1919; J. B. L'Episcopo; Memb. Com. Fiore C. Luongo, 125 N. Portland Avenue, Fordham, 1918; H. L. Wagener; E. R. Dorney. John J. Madden, 1042 Bergen Street, Tufts, 1913; R. F. Seidensticker; J. G. Williams. Harry Markow, 560 Putnam Avenue, Univ. & Bell., 1918; B. M. Eis; W. L. Wolfson. Samuel N. Moskowitz, 131 Java Street, L. I. C. H., 1915; Julius Gubner; Memb. Com. Maximillian Rosenberg, 1265 Dean Street, Univ. & Bell., 1918; B. M. Eis; A. M. Judd. Nicholas H. Ryan, 540 Ocean Avenue, Fordham, 1912; C. E. Rynd; W. M. Ennis. Jack L. Stein, 283 Kingston Avenue, Univ. & Bell., 1920; B. M. Eis; A. M. Judd. Joseph B. Torre, 2409 Dean Street, Fordham, 1920; M. Lombardo; Memb. Com. Gaetano Velardi, 397 Clinton Street, Naples, 1893; M. Lombardo; Memb. Com. Dec. 1920: Louis V. McGovern, 733 Quincy Street, Univ. & Bell., 1902. Philip Lubin, 534 Third Street, Univ. & Bell., 1918; Med. Soc. Co. N. Y.

Application for membership were received from the following:

Dec. 1920: Louis A. Bonvicino, 7309 Third Avenue, P. & S., N. Y., 1916; M. Lombardo; Memb. Com. Julius Kaufman, 4714 12th Avenue, P. & S., N. Y., 1917; J. B. Plotkin; M. J. Dattelbaum.

NEW PROPOSALS.

Jan. 1921: Kerson W. Barney, 126 Rogers Avenue, L. I. C. H., 1920; H. A. H., 1917; J. B. Plotkin; S. J. Cohen. Harry S. Bikoff, 66 Lewis Avenue, Univ. Morris; Harold Nexsen. Jacob Beckenstein, 1590 St. Marks Avenue, L. I. C. & Bell, 1918; B. B. Berkowitz; Samuel Linder. Wilfred V. Egan, 391 Union Street, L. I. C. H., 1914; Augustus Harris; Memb. Com. John A. Gildersleeve, 7325 14th Avenue, P. & S., N. Y., 1912; A. H. Bogart; H. B. Matthews. Sandor A. Levinsohn, 1081 Eastern Parkway, Univ. & Bell., 1918; R. Schilling; P. Goldfader; William Morris, 1642 Union Street, P. & S., N. Y., 1918; A. L. Henkin; I. D. Kruskal. Joseph C. Regan, Kingston Avenue Hospital, Univ. & Bell., 1913; H. L. Ratnoff; Memb. Com. Emilio C. Sauchelli, 1841 85th Street, L. I. C. H., 1918; J. Sarnoff; E. H. Mayne. George R. Shapiro, 141 Bergen Street, Virginia, 1917; S. A. De Yoanna; J. R. Valinoti. Samuel L. Siegler, 500 Hopkinson Avenue, Fordham, 1918; Morris L. Levy; E. L. Hergert. J. Parker Talmadge, 173 Amity Street, Albany, 1902; Richard E. Shaw; C. W. Stickle.

SCIENTIFIC PROGRAM.

Papers: Some Observations of Gall-Bladder Disease.

(Illustrated with Lantern Slides.) By Russell S. Fowler, M.D.

Dr. Bogart, incoming president, outlined his plans for the year.

On motion the report of the president was referred to a committee to act with the president with a view to printing and distributing the report, or of taking such action as they might deem necessary.

The report of the Treasurer was accepted.

The report of the Membership Committee was read and accepted.

The report of the Historical Committee was read and accepted.

The report of the Legislative Committee was read and accepted.

The report of the Visiting Committee was read and accepted.

The report of the Milk Commission was read and accepted.

The report of a special committee on planning was read and accepted.

It was moved that the report be received and printed together with the plan for financing it, and a copy sent to each member of the County Society, and that discussion of the matter be taken up by the Society at either a special or regular meeting within the next two months.

The report of the Directing Librarian was read and accepted.

Dr. Winfield moved that the main hall of the Society building be named McNaughton Hall in honor of Dr. McNaughton, and that the question be referred to the Board of Trustees.

The report of the Trustees was accepted.

The meeting adjourned at 11:05.

LEWIS P. ADDOMS, Secretary.



Medical Book News

BOOK REVIEW SUPPLEMENT TO THE *LONG ISLAND MEDICAL JOURNAL*

Edited by JAMES M. WINFIELD, M.D.

All communications, books for review, etc., should be addressed to the Editor of this Department, 1313 Bedford Ave., Brooklyn, New York

1921, No. 2

FEBRUARY, 1921

3 PAGES

THE ENDOCRINES.

THE ENDOCRINES. By Samuel Wyllis Bandler, M. D., F. A. C. S. Phila. & London, W. B. Saunders Company, 1920. 486 pages. 8vo. Cloth, \$7.00.

This volume of 475 pages contains an enormous amount of data concerning the physiology of the endocrines, culled from the researches of such men as Schafer, Cannon, Gley, Cushing, etc. These facts are used as a basis for the elaboration of innumerable hypotheses linking all sense-nerve-muscle reactions with endocrine activity. Accepting many of these unproven hypotheses as premises, logical structures are built upon this scientifically insecure foundation, which determine etiological factors of a large number and variety of conditions hitherto obscured. It is to be deprecated that these explanations, many of which might be quite seductive to the zealous therapist, have not been supported by experimental evidence.

HARRY KOSTER.

MAYO CLINIC PAPERS, 1919.

COLLECTED PAPERS OF THE MAYO CLINIC, ROCHESTER, MINNESOTA. Edited by Mrs. M. H. Mellish. Volume 11, 1919. Phila. & London, W. B. Saunders Company, 1920. 1331 pages. 490 illustrations. 8vo. Cloth, \$12.00.

This collection of very useful and scientific monographs for 1919 is now off the press.

So frequently have we commented upon the merit and great value of this annual publication that the casual perusal of its contents at this time does not permit of its appraisal.

It portrays the stupendous activity of this organized group. As a reference book it is unsurpassed for students in all fields of surgery, medicine and research.

The list of contributors is a long one. New names appear.

Suffice it to state this book will be studied carefully by those who wish to keep abreast of the times.

R. H. FOWLER.

COMMON DISEASES OF THE SKIN.

COMMON DISEASES OF THE SKIN, with Notes on Diagnosis and Treatment. By G. Gordon Campbell, B. Sc., M. D., C. M. New York, The Macmillan Company, 1920. 229 pages. Illustrated. 8vo. Cloth \$4.00.

This small book includes forty-one diseases of the skin which have appeared with the greatest frequency in the clinical and private practice of Dr. Campbell.

There is nothing instructive about the arrangement of the diseases as this is merely alphabetical, but in the description of these diseases the author has produced a book of very great value to the general practitioner, who on seeing any diseased manifestation of the skin usually finds himself in a maze, and in trying to extricate himself does the wrong thing. All of the descriptions are good without burdening the reader with pathology and theories of etiology, and the text is practically infiltrated with photographic illustrations. Simple forms of treatment have also been included for each condition.

Dr. Campbell's work is very commendable and now there is no reason for the general practitioner being ignorant of at least the "Common Diseases of the Skin."

E. A. G.

PERSONAL AND COMMUNITY HEALTH.

SHORT TALKS ON PERSONAL AND COMMUNITY HEALTH. By Louis Lehfeldt, A. M., M. D. Phila., F. A. Davis Company, 1920. 271 pages. 12mo. Cloth, \$2.00.

In his preface the author well states the reasons for this work—the education of the public, especially that of the school teacher and student. The book ably serves this purpose. It is written in simple language, understandable by anyone. As the title implies, the various articles are written in the form of short talks and none is long enough to become tiresome to the reader. Written in this

form the reader is struck by the apparent disconnection between the various topics, but in spite of this the reviewer looks upon it as one of the best works of its kind which has come to his attention. It is to be hoped that it will have a wide distribution—not only in the schools but among the general public as well.

E. H. M.

PELLAGRA.

PELLAGRA. By H. F. Harris, M. D. New York, The Macmillan Company, 1919. 421 pages. Plates

This volume of 421 pages, including index, is perhaps the best English work upon this subject. There is an exhaustive history of the disease and a full discussion of various theories of its causation and conclusive remarks upon treatment. The author is of the opinion "that pellagra is a disease which is a remote result of an intoxication from eating Indian corn, that develops only in the offspring of maize eaters in all or in a great majority of instances; but also may occur in others who have used bad maize for a long term of years."

He also expresses doubt if pellagra is ever cured when there are marked anatomical changes in the tissues especially affected by this intoxication.

The book is highly interesting and instructive to any one who has had the opportunity of seeing and treating pellagrins, and would be of great help to the general practitioner in aiding him to detect the disease in its incipency.

W.

PREVENTIVE MEDICINE.

PRACTICAL PREVENTIVE MEDICINE. By Mark F. Boyd, M. D., M. S., C. P. H. Philadelphia & London, W. B. Saunders Company, 1920. 352 pages. 135 illustrations. 8vo. Cloth, \$4.00.

This is another book trying to cover the whole subject of Preventive Medicine in a few hundred pages. The job is done rather well, although, as the author himself confesses, "in a desire to cover the entire field, a great condensation has been effected, which, in many instances, perhaps results in an inadequate consideration of important subjects."

The time has probably passed when a whole science may be condensed in a few hundred pages unless this is done for the sake of students or those who wish to take the short cut to knowledge. Dr. Boyd's attempt, however, seems to have met better success and presents a very readable, compact and clear compilation of the precepts of preventive medicine and hygiene.

The best part of the book is that treating on Epidemiology. Very serviceable likewise are the references to the sources at the end of each chapter. The illustrations are numerous although not always very clear.

G. M. P.

HEALTH AND SOCIAL PROGRESS.

HEALTH AND SOCIAL PROGRESS. By Rudolph M. Binder, Ph. D. Professor of Sociology, New York University. New York, PrenticeHall, Inc., 1920. 295 pages. 12 mo. \$3.00.

This book the author calls "A non-medical book, dedicated to the medical profession." It is to be hoped that not only the medical profession but all those interested in the progress of humanity will give it careful consideration.

The book is divided into two parts—Part I. dealing with fundamental factors regarding health. The conclusions to this part the author expresses in five fundamental laws, which are as follows:

"First—Law of Progress: Progress is possible only with a surplus of vitality over the immediately necessary activities of life.

Second—Law of Work: Work in the sense of telic endeavor and of the wisely controlled expenditure of energy is possible only with good health.

Third—Law of Social Personality: The individual can grow into a social personality only in proportion as his health permits him to enter into mutually helpful and sympathetic relations with others.

Fourth—Law of Civilization: Civilization progresses in direct ratio to the interdependence of persons and peoples; i. e., on the interchange of mental and industrial products which result from a healthy individual and social life.

Fifth—Law of General Development: Individuals and societies develop in proportion to their growth in self-reliance; and this depends upon their ability to attain health with the resultant confidence in their ability to control nature and their own destiny."

Part II. deals with specific cases of health in relation to society, and the authors proves conclusively that the progress of the world has been commensurate with its health. He deals particularly with the effect of malaria and hookworm disease on world progress, showing definitely that the civilizations of ancient Greece and Rome were destroyed not so much by economic, political and moral causes as by malaria. Again he says that the reason for the lack of civilization in the tropical countries today is largely due to disease. He not only shows that disease has been responsible for racial degeneration, but that when disease has been eradicated the race has again come into its own.

The final chapter entitled "Results and Prospects" shows what certain industrial concerns have accomplished and the economic value of money well spent in controlling disease.

The book is extremely well written and is a very complete and logical argument showing the relation of health to progress.

NURSING MENTAL DISEASES.

NURSING MENTAL DISEASES. By Harriet Bailey, R. N. New York. The Macmillan Company, 1920. 175 pages. 12mo. Cloth, \$1.75.

Harriet Bailey, R. N., has given not only the nursing profession but the medical profession as well a book of unquestionable value.

The student nurse, particularly if she intends to specialize in nursing mental diseases, should read and re-read this small work.

It clearly and concisely describes, in language easily understood, how to detect promptly changing mental conditions and what should be done by the nurse during the interim before a physician arrives.

In reading this book we were especially impressed with Chapter Six, where the authoress most accurately describes the type of person who is best fitted for this work, and it would be well to remember that the efficient nurse is the one who has a moderate knowledge of theory, but plenty of common sense and good judgment, all of which is invaluable to the patient as well as to the attending physician.

Again in Chapters Seven and Eight, in which the authoress describes not only the general care of the patient, but how to handle dangerous patients with the least possible hazard to the nurse and at the same time minimize against accidents and injuries to the patients.

The book is well written and instructive and should be in the Library of the practitioner as well as the nurse.

E. E. HICKS.

YOURS FOR SLEEP.

YOURS FOR SLEEP. By William S. Walsh, M. D. New York, E. P. Dutton and Company, 1920. 274 pages. 12mo. \$2.50.

This is an unusually praiseworthy little work on sleep and allied matters of personal hygiene. Many assays of its teachings prove it to be wise, safe and very readable. It is first of all a popular rather than highly technical essay, flushed with apt quotations and references, usually of a classical turn. There are 245 pages of open text plus 28 pages of fine index. Many little quips are worthy of quotation. "Present day soothsayers are endowed with a remarkable adapta-

bility in separating the gullible from their money." Or, this from Hippocrates: "While praying to the gods a man ought also to use his own exertions." There is a very practical chapter on "The Bed and the Sleeping Room." Insomnia is in fact more a symptom than a disorder per se. And with aids such as he pleasantly mentions it is usually practicable to tide our cases over without recourse to direct hypnotics.

Sleep is about the best field of ignorance left to the exploiter whether of philosophy, hypnotics or joyism. To meet rational discourse hereon is the more agreeable. All credit to such a sane and plain adviser.

W. B.

BOOKS RECEIVED.

Books received for review are acknowledged promptly in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases review notices will be promptly published shortly after acknowledgment of receipt has been made in this column.

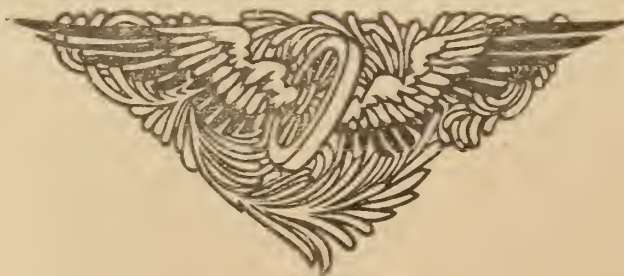
THE ROENTGEN DIAGNOSIS OF DISEASES OF THE ALIMENTARY CANAL. By Russell D. Carman, M. D. Second edition, revised. Phila. & London, W. B. Saunders Company, 1920. 676 pages, 626 illustrations. 8vo. Cloth, \$8.50.

A TEXT-BOOK OF THE PRACTICE OF MEDICINE. By James M. Anders, M. D., Ph. D. LL. D. Fourteenth edition, with the assistance of John H. Musser, Jr., B. S., M. D. Phila. & London, W. B. Saunders Company, 1920. 1284 pages. Illustrated. 8vo. Cloth, \$10.00.

PRACTICAL MEDICINE SERIES Comprising eight Volumes on the Year's Progress in Medicine and Surgery. Under the General Editorial Charge of Charles L. Mix, A. M., M. D. Series 1920. Volume 3. The Eye, Ear, Nose and Throat, Edited by Casey A. Wood, C. M., M. D., C. L., Albert H. Andrews, M. D., George H. Shambaugh, M. D. Chicago, Year Book Publishers, 1920. 382 pages, illustrated. 12mo. Cloth, \$1.75. Price of Series of eight volumes, \$12.00. Series 1920. Volume 4, Pediatrics, Edited by Isaac Abt., M. D., with the collaboration of A. Levinson, M. D.; Orthopedica Surgery, Edited by Edwin W. Ryerson, M. D., with the collaboration of Robert O. Ritter, M. D. Chicago, Year Book Publishers, 1920. 256 pages, illustrated. 12mo. Cloth, \$1.75. Price of series of eight volumes, \$12.00.

HEART AFFECTIONS, THEIR RECOGNITION AND TREATMENT. By S. Calvin Smith, M. S., M. D. Philadelphia, F. A. Davis Company, 1920. 440 pages, 83 illustrations. 8vo. Cloth, \$5.50.

PULMONARY TUBERCULOSIS, A HANDBOOK FOR STUDENTS AND PRACTITIONERS. By Edward O. Otis, A. B., M. D. Second Edition. Boston, W. M. Leonard, 1920. 212 pages, illustrated. 8vo. Cloth, \$3.50.



LONG ISLAND MEDICAL JOURNAL

VOL. XV.

MARCH, 1921

NO. 3

OFFICIAL BLUE BOOK 1921—STATE OF INTESTINAL OBSTRUCTION.

Route 35 Direct road from Health to Obstruction.

A tour at racing speed hitting only the high spots.

Henry F. Graham, M. D., F. A. C. S.

Brooklyn, New York.

A THOUGHTFUL review of his experience is most instructive to anyone who has cared for and seen many cases of intestinal obstruction.

His emotions are sure to be mingled pride and chagrin. In one instance, a brilliant operation has saved a life; in another, procrastination and hesitancy have thrown away a patient's last chance and death takes the winning trick.

Perhaps a few scattered and incomplete observations, illustrated by case reports, will be of interest and value.

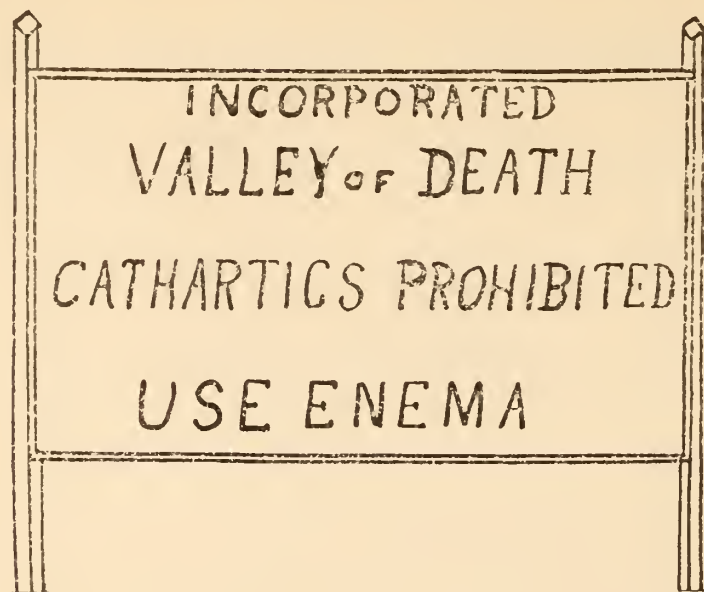
In no other disease is it so important to be guided by a "hunch" as in this one. You are asked to see a patient who has vomited a few times, who has abdominal pain, more or less constant with colicky exacerbations, and his bowels have not moved or have moved only slightly. You make a careful physical examination, including a rectal examination, the hernia regions, auscultation of the abdomen, etc. The diagnosis is still obscure but you feel that an intestinal obstruction is probably present. Your actions in the next few hours frequently mean life or death.

1st. Never give morphine for the pain even after the patient has consented to an operation. It is too valuable a drug to waste. A club or revolver kills more quickly.

2nd. Never give cathartics. The temptation is strong because you have seen similar cases recover after a brisk purgation.

3d. Try an enema of eight ounces each of milk and molasses, given at a temperature of 120 degrees F. If this fails to bring a movement with a satisfactory amount of gas, give an S. S. enema with four

drams of turpentine to the quart in the knee chest position. If an angulation of the sigmoid is present the result may be miraculous.



Case History. Female in her twenties admitted to the Methodist Hospital about midnight. She had been sick three days with abdominal pain, distention and constipation. There was a history of previous similar attacks. Numerous enemata had been given at her home without result. A hot enema in the knee chest position caused an evacuation that "filled the bed pan" and caused complete relief.

If these enemata fail and the symptoms persist remember that the mortality of an exploratory operation is practically zero and the mortality of indecision and delay is still about 40%.

Do not be deceived by a history of dietary indiscretion. I once heard of a man who died from acute appendicitis because he had been so unlucky as to eat blueberry pie the night before the attack. The pie cost him 24 hours delay and his life.

If in doubt remember Deaver's maxim. "The aseptic scalpel dispels the mystery and reveals the truth."

VOMITUS. Is like the auctioneer's cry.

Going! Vomitus clear.

Going! Vomitus bile stained or duodenal in character.

Gone! Vomitus fecal.

PAIN.

Usually somewhat colicky. May be intermittent if the obstruction is incomplete at first. May be continuous with colicky exacerbations.

CONSTIPATION.

May be absolute or there may be a movement from the bowel below the obstruction. If bloody mucus is passed by a child, intussusception is usually present. In an adult, mesenteric embolism or thrombosis is likely.

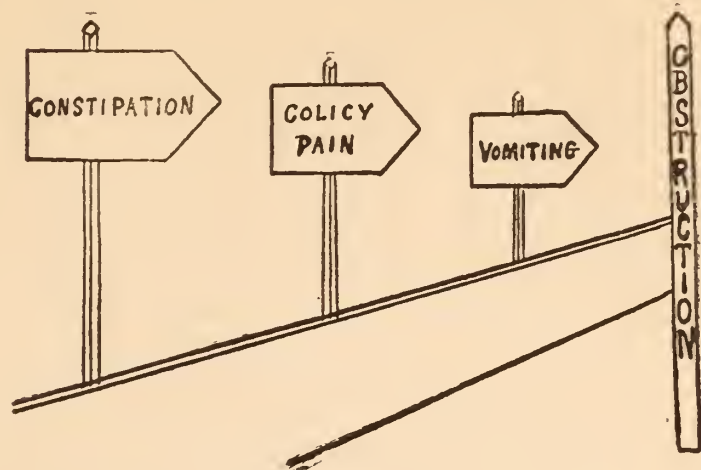
Case report. E. M. Age 8 months. Began vomiting at 7 A. M. and vomited frequently all day. Crying with pain. Enema was returned with mucus and blood. A small sausage shaped tumor was felt in the region of the hepatic flexure. Operation at 8 P. M. An intussusception was found in the right hypochondrium. It was easily withdrawn. Recovery.

EXAMINATION.

DISTENSION.

If most marked around the periphery of the abdomen, think of

the sigmoid or rectum as the seat of the obstruction. If central distended loops of small gut, think of the region of the ileo-caecal valve.



MASSES IN HERNIA REGIONS.

Always look for them. They may be large or small. A tumor the size of a walnut in a femoral hernia may be as deadly as a rifle bullet.

Case History. Patient was operated upon for intestinal obstruction without a diagnosis of the cause being made. After the abdomen was opened a loop of gut was found entering the right inguinal canal. The towels were lifted and disclosed a mass on the outside over the canal. In this case an incomplete examination was responsible for two incisions when one should have sufficed.

Case History. A. K. Age 27. Had had a rupture for two years. Brought to the M. E. Hospital by the ambulance about midnight suffering from pain in the right groin and vomiting. She had been sick two days. The pain was severe and knife like and radiated all over the abdomen. She had vomited all food or fluid taken. Bowels had not moved. There was a SMALL MASS the size of an English Walnut in the right femoral region.

Operation. Incision over the sac disclosed gangrenous small gut with an abscess about it. Abdominal incision enabled a resection of the affected loop with an end to end anastomosis. The excluded loop was then drawn out through the femoral canal and the inner opening of the canal sutured on the inside and the canal packed from outside. Uneventful recovery. The chief problem in this case was the technique by which the clean abdominal incision could be kept clean and not contaminated from the abscess in the groin. It necessitated a complete change of gloves and instruments.

ABDOMINAL TUMORS.

Are not frequently felt in acute obstruction. A sausage shaped mass may be felt in intussusception anywhere along the course of the colon.

RECTAL TUMORS. May be felt in an intussusception that has travelled low down. Occasionally a sigmoid mass or carcinoma of the rectum is unexpectedly felt in this way.

AUDIBLE PERISTALTIC SOUNDS. May be heard with a stethoscope. They are usually loudest in the region where the obstruction exists.

Before proceeding to treatment we must mention the fact that DIARRHOEA may be the first symptom of a carcinoma that will later cause obstruction.

Case Report. W. DeW. Age 58 years. Diarrhoea for 8 weeks. Bowels move 7 or 8 times daily. Has never had any blood in the stools. Has lost weight. Operation showed a large cylindrical carcinoma involving the entire circumference of a portion of the sigmoid.

Partial Obstruction. Is perhaps the most difficult problem of all. The intermittent vomiting, distension and constipation too often give a feeling of security until it is too late.

Case History. P. L. Age 12 years. Brought to M. E. Hospital with an acute appendicitis. Appendectomy with tube to pelvis.

6th day post. op. Pain, vomiting and distension relieved by a very effectual enema.

7th day post. op. Vomited. No distension. Flatus expelled.

8th day post. op. Vomited. Pain. Large amount of flatus expelled.

9th day post. op. Vomited. Pain. Large amount of flatus expelled.

10th day post. op. No vomiting. Some pain. Bowels moved and some flatus was expelled.

11th day post. op. No vomiting. No pain. Bowels moved. Passed Flatus.

12th day post. op. Distended but had a large bowel movement and passed gas.

13th day post. op. Comfortable.

14th day post. op. Vomited. Has pain. No bowel movement. Very much distended. No flatus.

15th day post. op. Much better day. Some fecal return. However vomited and was somewhat distended.

16th day post. op. Enema brought a large amount of gas. Patient still distended. Has pain and audible peristalsis.

Operation. Loop of small gut adherent to tube tract and obstructed brought out through wound and sutured there. Died about twelve hours later.

Deductions. The absence of temperature spoke against a peritonitis. In a similar case in the future with frequent distension, intermittent vomiting and intermittent pain I would favor an early operation if audible peristalsis should be present.

Case History. John W. Age 50 years. Two days before admission ate fish, cabbage, beef sandwiches and raisin bread. The next day he had cramps in the abdomen and vomiting but no bowel movement. The abdomen was moderately distended. Following enemata and CATHARTIC he had one fluid evacuation, passed a little flatus and became less distended. Operation was delayed nearly 48 hours because of this. At operation an obstruction, caused by a band, was found. The small gut was very dark almost gangrenous. Death ensued promptly following operation.

REDUCTION EN MASSE.

The reduction of a hernia without relief of the intestinal obstruction is well illustrated by this history.

Case Report. F. D. Age 53 years. Has had a hernia for 8 years. Five years ago had a sudden severe pain over the abdomen. This lasted day and night for 48 hours. It was relieved by vomiting. Patient was then all right for two days when the pain and vomiting returned. The pain was aggravated by pushing up on a rupture which was present. The bowels had moved normally with a little gas. On examination no hernia was seen or felt. An abdominal incision was made and revealed strangulated small intestines in a sac near the left internal inguinal ring. The hernia had been pushed back into the abdomen, sac, intestines, strangulation and all.

REVERSE ROUTE 35R

VIA OPERATIVE TREATMENT

The only safe road. Get an early start.

Present mortality figures show that the profession sleeps too long over these cases.

No attempt will be made to discuss in detail the operative treatment. Post Operative Obstruction. Value of short circuiting.

Case Report. R. M. Age 12. Admitted to M. E. Hospital with an acute appendicitis. Appendectomy. Tube to pelvis. About the 10th day developed an intestinal obstruction. Operation. Terminal ileum found adherent to drainage tract. Adhesions were separated and an attempt made to cover the raw areas but too much constriction resulted so a Murphy Button anastomosis was made between the terminal ileum, above the obstruction, and the sigmoid. Recovery was uneventful and the boy has remained well ever since. He is not constipated and has no diarrhoea.

THE MICULICZ OPERATION.

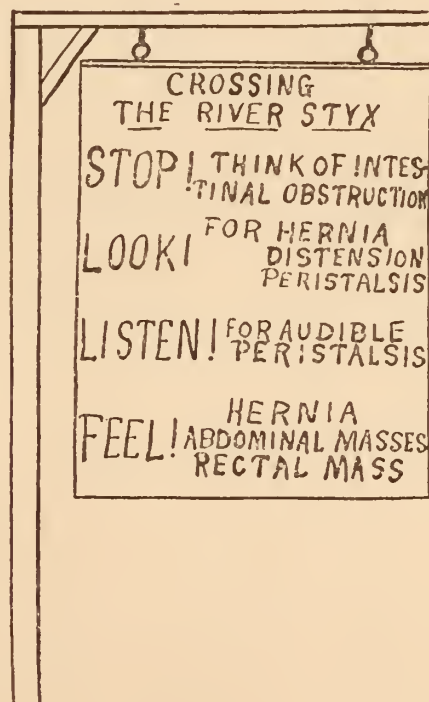
In the most desperate cases of acute obstruction—especially in the large gut—this is the best available procedure. There is no chance for peritoneal soiling, no suture line to leak intestinal contents.

The mesentery of the gut is tacked together in such a way as to produce a double barrelled effect of the lumen. This loop is then fastened in the wound to be opened at the close of the operation or, preferably, later.

After the patient has recovered a clamp is placed with a blade in the lumen of each limb of the loop and is then locked. In about seven days this cuts through, reestablish the direct fecal channel. If necessary a later small operation under local anaesthesia closes up the remaining fistula.

Case Report. C. H. Age 45 years. Umbilical hernia for 19 years. Has never caused any trouble. Two and a half days before admission she had a coughing spell. The hernia became distended and could not be reduced. There was marked pain in the hernia. No vomiting but some nausea. Bowels did not move. She was seen by a doctor who said that she had "indigestion and would be all right in a few days." There was a mass in the abdominal wall the size of a foot ball. It was tender and oedematous. At operation 21 inches of gangrenous transverse colon were found lying in an abscess in the fat layer. There was a sac of an old umbilical hernia. Dead gut was removed and the abscess drained. For days the feces all poured out into the fat layer and then later ran out through the drainage tubes. When the wound became healthy the clamp was put on and the spur cut. Later under novocaine the edges were loosened up and sutured together. This patient is still in the hospital. There is a sinus about three inches long with some fecal discharge which will eventually heal without further interference.

These fragmentary remarks have merely touched the surface of this tremendous subject.



GASTRIC CARCINOMA WITH CEREBRAL SYMPTOMS.

Henry Wolfer, M. D.

Brooklyn, New York.

THE following case which was admitted to the Long Island College hospital, service of Dr. Tasker Howard, is one of two recent cases of gastric carcinoma presenting marked cerebral manifestations. The physical findings and symptoms were such that carcinoma of the stomach was not suspected but instead gave the impression that we were dealing primarily with some cerebral condition.

The following gives the essential features of the history and physical findings—

The patient, a male, white, 61 years of age, born in U. S. and a printer by occupation was admitted in deep coma Oct. 10, 1920 with the following history. He was found in a rooming house having a violent epilepiform convulsion which appeared to involve principally the left arm and leg. The left angle of the mouth was drawn down and there was considerable frothing. The convulsion was first tonic then clonic in character with the head retracted. The pupils were equal in size and reacted to light directly and consensually.

A later statement from the patient and a visiting friend states that his chief complaint has been epigastric pain on taking food. This pain ceases after eating. His family and past history reveal nothing of importance. Present history: During the past month he has lost considerable weight and had frequent attacks of vertigo. Since June 1920 his appetite has been poor and at times vomited his food after meals. No hematemesis—or constipation. There was no history obtained which pointed to epilepsy. Had a gonorrhoeal infection 20 years ago. Formerly used alcoholics to excess and has been unemployed for the past 3 months.

The physical examination made the following morning shows a male white about 170 lbs. Is well nourished and developed and shows a good hemic component. He answers questions in a stupid way and mildly resists attempts at examination. Pupils are equal and react to light and accommodation. Extra ocular movements regular. The sclera show slight congestion and retinal examination, tortuous vessels and clear discs. There is a bite wound on the left edge of the tongue—it is clean and shows no tremor or deviation. The gums show a slight marginal infection and a mild degree of purplish discoloration, which is not stippling but a definite cyanosis. There is an increased antero posterior diameter of the chest. The breath sounds are faint with a few coarse moist rales heard posteriorly on both sides. There is no visible or palpable apex beat. The left border is 10 c. m. in the 5 space and the right border 2 c. m. in the 4 space. The sounds are somewhat weak but still clear and regular. Basal sounds are also weak. The second aortic is greater than the second pulmonic. The radial pulses are equal and synchronous and show no abnormal thickening. The abdomen is symmetrical and no masses are palpable. There is some muscular resistance on deep palpation over the right upper quadrant. The kidneys, liver and spleen are not palpable. Due to the resistance of the patient the reflexes of the upper extremities cannot be elicited. The knee jerks are present but diminished. No Babinski or clonus.

In the nurse's notes a left sided paralysis was noted but this had entirely cleared up at the time of the examination.

The following day the patient was in a semi-stuporous condition and in the evening had a generalized convulsive seizure with muscular twitchings. This was followed by a state of marked restlessness and delirium. On the 3 day following admission the patient had many convulsive seizures and showed marked muscular twitchings of the left arm and leg. He lay with the head drawn to the left and eyes deviated to the same side. Earlier in the day the left leg and arms were perfectly limp with no response to pin pricks. The patellar reflexes were absent and no angle clonus was elicited. The abdominal and cremasteric reflexes were present. Several hours later this apparent left sided paralysis had entirely disappeared. The coma, however, became progressively more marked and the patient died on the 4 day after admission.

The laboratory findings which included blood chemistry spinal fluid examination and blood Wasserman were negative for positive findings. The spinal fluid was not under pressure. There was a slight increase in the blood urea and uric acid—and faint trace of albumen and a few granular casts in the urine but nothing in the findings suggestive of uremia—acidosis—cerebral hemorrhage or lues—etc.

We were fortunate in securing an autopsy which was performed by Dr. A. Murray. A carcinoma of the pylorus was found extending into the duodenum and involving the head of the pancreas. The heart was of normal size, cirrhotic changes were found in the kidneys and liver. The brain showed nothing but slight edema.

This is one of two undiagnosed cases of carcinoma observed on the service of Dr. Tasker Howard. Both cases showed cerebral manifestations not fully or satisfactorily accounted for by the cerebral pathology found at autopsy or which could be attributed to conditions other than the carcinoma of the stomach found at autopsy. Nervous and mental symptoms are not uncommon in the later stages of this condition when the patient shows marked emaciation and weakness, but occurring earlier without the usual characteristics of carcinoma in this location, the diagnosis is very likely to be overlooked. This is particularly so when the patient's condition will not permit the usual complete gastro-intestinal survey. Aside from symptoms which might be produced by metastatic involvement of the cranial contents and those produced in the extreme stages—coma has been most often observed. This was first described by Van Jacksh, Reiss, Senator, Klemperer and others and the striking similarity to diabetic coma noted. However, these cases showed the presence of acetone, diacetic acid or both in the urine and as in diabetes, the coma was undoubtedly due to an acid intoxication. I have been unable thus far to find any mention of symptoms simulating hemiplegia or as in our other case, of localizing signs of a central nervous involvement. Other nervous manifestations which have been described in gastric carcinoma are epileptiform convulsions, often associated with the comatose condition, and multiple neuritis. Such symptoms as are here described may be held to favor the view that the growing carcinoma elaborates a toxin which is capable of producing cerebral manifestations simulating nerve paralysis of central nervous origin.

Carcinoma of Stomach, with Autopsy Report.

Henry Wolfer, M. D.

DR. TASKER HOWARD: "Perhaps, in passing, a few words about the other case Dr. Wolfer mentioned would be of interest, too. The other case was that of an old man who came in with fever and failing vision. Those were his chief complaints. The history was rather meagre, but it seemed he had been losing his health, accompanied by some digestive disturbance for about 6 months. I found, on looking him over, that he had a paralysis of quite a number of the cranial nerves, so much so that we thought very seriously that it was a case of lethargic encephalitis. He had optic neuritis on both sides, with involvement of the third, fourth and seventh cranial nerves. He sunk into a coma and died. We didn't have the faintest idea of what was the matter with him, but it was disclosed at autopsy and again proved to be a carcinoma of the stomach. There has been a third case, about as puzzling, on Dr. Joachim's service, in the same ward, so we have pretty nearly come in that ward to calling anything that we cannot account for in any other way, carcinoma of the stomach. We are a little bit afraid of it. In both cases there was absolutely nothing else found that could account for the cerebral symptoms. They were gone over pathologically very carefully. We thought it must have been due to some toxin, but the toxin in neither case was an acidemia. That was ruled out in both cases. It was certainly in neither case a uremia, which leaves us merely some hypothetical toxin which may have been elaborated by the carcinoma. Such a hypothetical toxin is suggested by Klemperer, aside from the acidosis, which he also accepts as the cause of some cases of optic neuritis which he has seen associated with carcinoma of the stomach.

"I think it would be of interest to learn if any of the other members have seen other nerve manifestations in the course of carcinoma of the stomach."

DR. HARVEY B. MATTHEWS:

"The Chair wishes to say that about three months ago he did a cesarean section on a woman who had an extensive epithelioma of the cervix. She was brought into the hospital on the ambulance with a diagnosis of placenta previa, but the minute you made an examination you immediately saw what the trouble was. She was in labor at this time. She had had a severe hemorrhage. Rather than let the head pass through the friable cervix and parametrium, we did a cesarean and delivered an eight-and-a-half pound baby. The patient's condition was so bad that we did not attempt to do a hysterectomy, which, if we could have done, would have been the time to have done it. She made an uneventful recovery so far as the operation was concerned, and then we tried to prevail on her to have a hysterectomy before going home but she would not consent and went home. This was at the Greenpoint Hospital. The Social Service Department lost track of her for about 2 months but we finally located her. She had been in the country somewhere in New Jersey. I got her to go into the Long Island College Hospital with the idea of using radium. She went in and we placed 100 milligrams of radium against the cervix. Seventy-two hours afterwards she had quite a severe hemorrhage; in fact, she had a severe hemorrhage when the radium was being put in place. Coincident with the hemorrhage, or a few hours later, she was found in a state of coma. We didn't know exactly

how to account for this state of coma, except by explaining it as Dr. Wolfer and Dr. Howard have. She was in coma for about 3 days and then became a raving maniac and had to be restrained and put in a straight-jacket. She was transferred to the Psychopatic Ward at Kings County.

"In looking over the case to try to explain why she was in this comatose state and later in this wild delirious state, the only explanation we could find other than a mild nephritis, which hadn't given her any special trouble, was such as these three cases mentioned here have demonstrated. I can only remember one other case of uterine cancer which caused a similar condition."

DR. MEYER A. RABINOWITZ:

"About thirteen years ago I saw a woman with a large mass in the stomach which was evidently a carcinoma. She had all the signs of a multiple neuritis affecting all four extremities. That is the only case I remember seeing in which a gastric carcinoma presented symptoms of the nervous system not explainable by metastatic or other gross pathological involvement."

The doctor then referred to the fact that, as a rule, carcinomas developed in those of advanced years, called attention to the fact that kidney changes of a vascular character are not infrequently associated, spoke of the toxins which arise from the carcinoma and its ulcerating surface, and referred to the retention of these toxins as a result of faulty renal elimination, and added: "In this way there may be brought about an effect on the nervous system."

Continuing, he said: "That would be one way of explaining the cerebral symptoms in Dr. Wolfer's case, in view of the fact that no marked cerebral edema or other gross pathological changes were demonstrated. In other cases the toxin generated in gastric carcinomata has a peculiar action on the blood-vessels which results in transudation and edemas. This was markedly in evidence in the case Dr. Howard mentioned, but did not describe—the case of Dr. Henry Joachim's. There the man presented a marked anasarca with fluid in both pleural cavities and the peritoneal cavity. On invitation to see the case, I ventured a diagnosis of carcinoma of the stomach, because of these findings in the presence of a markedly cachectic appearance. The absence of gastric symptoms was attributed and subsequently proven on autopsy to be due to the fact that the cardiac and pyloric orifices were uninvolved.

"It is likely that in the cancer cases with diseased blood-vessels, edemas are prone to develop, whereas in cases where the kidneys are more or less functionally inefficient, the retention of carcinoma-produced toxin may produce effects on the nervous system—brain, cord, or nerves.

"Instances of these toxic effects are found in well-authenticated reports from the literature. Oppenheim (*Charité—Annalen*, xiii, 1888) described a case of transitory hemiplegia in a carcinomatous cachexia and gave it as his opinion that it was a question of toxic focal disease. Later, Betelheim (*Wien. Med. Bl.*, 1901) published a similar case. Nonne (*Neurologisches Zentralblatt*, 1900) describes several similar cases.

"That these neurological symptoms might be attributed to cancer cells found in the cerebral pia mater, with macroscopically negative findings, is illustrated by a case described by Saenger in a case of paralysis complicating cancer (*Neurologisches Zentralblatt*, 1900 and 1901)."

CEREBRAL ABSCESS WITH MASKED SYMPTOMS.*

Robert E. Coughlin, M. D.

Brooklyn, New York.

Obstetrician to Norwegian Hospital, Brooklyn, N. Y.

THE following cases of brain abscess have come under the observation of the writer in his hospital experience.

The following case was admitted on October 14, 1907, to the Norwegian Hospital, medical division.

Case 1. Mrs. I. A., age twenty-five years; occupation, housewife; birthplace, Norway.

Family history: Mother, sister and two brothers died of pulmonary tuberculosis; one brother had some form of kidney disease.

Past history: No disease of childhood that she remembered. Except for two attacks of rheumatism she had always been perfectly healthy. Two years ago she had a severe earache in her right ear, which was relieved by a sinapism applied to the back of her neck; discharge was not present. Menstrual life began at fifteen; twenty-eight day type, lasting from two to three days; rather painful; moderate in amount. Patient had one child, seven months old, no miscarriages. She took an occasional glass of beer, no tea; coffee, three or four cups a day.

Her present trouble began two months ago, commencing in a constant sharp headache, slightly worse at night; always located in the right occipital and parietal regions. She vomited occasionally; the same had no reference to meals. Once or twice the vomiting was rather forcible. She had attacks of vertigo, also visual hallucinations, but never any paralysis or epileptic attacks. Her control of bladder and rectum was perfect, bowels were constipated.

Examination: Patient looked poorly nourished; complexion was fair; lips and conjunctivae were anaemic, tongue slightly coated. Teeth were in fair condition. Pulse was regular, small, of low tension, vessel wall was not thickened. Pupils were equal and reacted to light. Heart and lungs were normal. Uranalysis: On October 17, 1907, showed specific gravity 1018, urine straw colored, triple phosphates present, very fine trace of albumin present, no sugar. There were present a heavy sediment, mucous and debris, epithelium and white blood cells.

Diagnosis: Held in reserve.

Treatment: Purely symptomatic.

Epitome of family history, past history, and present condition. Family history of tuberculosis very strong. No diseases of childhood. Pain in right ear two years ago. Occipital headache on right side of head constant and worse at night. Forcible vomiting. Vertigo. Poorly nourished patient. Anaemic. Small low tension pulse.

On October 20, 1907, eyes were examined by the consulting ophthalmologist and found to be entirely normal, not even a congestion of the vessels of fundus.

On October 21, 1907, the consulting physician examined his patient

* Read before the Medical Society of Bay Ridge, January 11, 1921.

and thought the condition due to anaemia, malnutrition and decayed teeth.

On October 31, 1907, the consulting neurologist examined the patient and did a lumbar puncture, but a dry tap was obtained. On the same day an aurist examined ears and only a congestion of right drum was found.

Blood count: In October 31, 1907, showed white blood cells, 18,000; polynuclear cells, 86 per cent; lymphocytes, 11 per cent; eosinophiles, 1 per cent; mast cells, 2 per cent; hemoglobin (blotting paper method), 90 per cent.

On November 1, 1907, the attending surgeon decided that the patient could not be operated upon until something more definite could be localized.

On admission the temperature was 99.6 F., the highest temperature being 101 F., lowest temperature 97.2 F. The average morning temperature was about normal; the average evening temperature was 99.4 F. Five days prior to death a normal temperature was present.

The pulse rate ran from 82 on admission to 145 before death. Lowest pulse rate 68.

The respirations never varied from 20 to 24 throughout.

In spite of all treatment the headache continued until November 2d, when patient became stupid but answered questions rationally. Sunday at 5 P. M. breathing became very slow and shallow. Pulse kept fairly strong, later becoming thready and slow, until death occurred at 6 P. M.

Necropsy: Upon opening the calvarium an irregular, burrowing abscess in the left hemisphere just external to the lateral ventricle could be made out. This burrowing pus could be traced to a small opening entering the right ear. The base of brain was covered with exudate. A complete post mortem examination was not performed, by request of family.

Conclusions: Briefly stated, here was a case of a young woman with a strong family history of tuberculosis; a history of pain in her right ear without any discharge of pus two years previously; a pain in right occipital and parietal region coming on two months before her admission to the hospital, this pain being constant and unrelieved by treatment and worse at night; forcible vomiting; vertigo, anaemic; a leucytosis of 18,000; a low tension pulse; patient dying after all apparent means had been employed to locate her disease; and the necropsy showing the diseased condition in the left hemisphere of the brain, where there had never been the slightest sign to indicate the location of the abscess in this situation. Had the consulting physician operated over the site of trouble as indicated by the symptoms he never would have reached the diseased area.

Greene, in the *International Textbook of Surgery* says: "To wait till a complete diagnosis of the presence and situation of an abscess is in the majority of cases to lose the only opportunity of saving life, for the full development of symptoms necessary for such a diagnosis in most cases show themselves only in the latest stages, just before death, when the vital forces are so reduced that operative procedure is not justifiable. For a fair chance of success the operation must be done early; and the fact already stated, that in 92 per cent of otitic abscesses of the brain the bone is diseased directly to the dura, justifies and demands an exploration of the bone, even on slight suspicion of brain disease. If this is done by exposing the ear cavities by the so-called

radical operation, the disease can be followed inward from its source to the brain."

CEREBRAL ABSCESS IN PREGNANCY.

The following patient was admitted on December 10, 1920, to the Norwegian Hospital, obstetrical service.

Case 11. Mrs. C. L. age 24 years, occupation housewife, birth-place U. S. Color white. Primipara.

Family history negative.

Past history: Measles when a child. Was five and a half months pregnant on admission to hospital. Pregnancy was marked by headache, vomiting, convulsions and slight edema. Menstrual history normal. Married eight months. Patient's habits were good.

Her present trouble began when she suddenly developed convulsions about 24 hours previously. There were eight convulsions before and one after removal, in ambulance. This one convulsion occurred while she was being examined for admission to the obstetrical service. This convulsion lasted two minutes.

Examination: Patient appeared poorly nourished. Complexion was fair, lips and conjunctivae were anaemic, tongue markedly coated and odor of breath offensive and toxic in character. Lips excoriated and showed herpes. Marked pulsation of the corotid.

Patient more or less in coma, but could be aroused and would answer questions.

Head and scalp negative. Ears negative. Eyes were equal and reacted to light feebly. Teeth fairly good. Pulse was regular, small of high tension, vessel wall was not thickened.

Lungs normal.

First sound of heart of good quality. Second sound feeble.

Abdomen and extremities normal. Liver not felt. Spleen not enlarged.

Urinary incontinence.

Petechiae over abdomen suggested typhoid.

Wedal negative.

Blood count: Red cells 3,376,000, Hemoglobin 70 per cent, Leucocytes 16,000.

Polymorphonuclear Leucocytes, 88.

Small Mononuclear Leucocytes, 12.

Cells counted 200.

Blood chemistry: Blood urea, 21 milograms in 100 c. c. of blood (1.5 m. gr.)

Urine: Sp. gr. 1020, heavy cloud of albumin and granular casts.

Spinal fluid removed on December 15, 1920. It was seen under pressure and of a distinctly brown coloration. Cell count of 43 per. cu. m. m. 15 c. c. More fluid was removed on the following day with a cell count of 35. Culture of spinal fluid was negative. Smear of same showed no specific organisms. Wasserman was negative.

Blood count Dec. 13, 1920:

Red cells 3,776,000.

Hemoglobin 70 per cent, Leucocytes 16,000, Polymorphonuclear, Leucocytes 88, Small Mononuclear 12, Cells counted 200.

Blood leucocytes 91 per cent. Small leucocytes 9.

Blood chemistry: 1.5 m. gr. (per 100 c. c. blood).

Blood urea 21 m. gr. per 100 c. c. of blood.

Dec. 15 Leucocytes 26,000.

Dec. 16 Leucocytes 24,000.

Blood pressure readings: Dec. 10, 1920—S. 145, D. 100; Dec. 11—S. 130 D. 90; Dec. 12—S. 145 D. 85; Dec. 13—S. 140 D. 85; Dec. 14—S. 135 D. 95; Dec. 15—S. 135 D. 96; Dec. 16—S. 140 D. 90; Dec. 17—S. 125 D. 90; Dec. 18—S. 125 D. 90

Temperature varied from subnormal to 105 1/5 preceding death. Temperature on admission 100.

Pulse varied from 40 to 150. Pulse on admission 110. Preceding death 150.

Respiration varied from 26 to 50. Respiration on admission 40.

On Dec. 15, patient began to have great rigidity of neck, twitching of muscles of face, marked opisthotonus and pleurosthotonus.

Babinski, Brudinski and Kernig's signs were positive.

The twitching of the facial muscles, confined mostly to the right side, with locking of the lower jaw suggested lock jaw.

There was great prostration, emaciation and exhaustion.

Treatment and progress of the disease: Believing from the start that we had a patient with eclampsia, we pursued the ordinary procedure for the relief of her convulsions, consisting of large doses of veratrum, hot packs, colonic irrigations and induction of labor. Labor occurred ten hours after induction. A dead born foetus was expelled, the same being macerated and giving the appearance of having been dead for some time. Placenta expelled intact by the Crede method, a few hours after birth of foetus.

The position of the foetus was R. O. A. It was well developed and appeared to be a foetus at about five months.

After delivery patient continued in a condition of mental dulness with periods of coma. The fever continued high and the pulse remained fast.

On Dec. 16, when the meningeal symptoms became marked, anti menogococi serum was administered into the spinal canal on the supposition that a condition of meningitis was present, though no organism in the fluid was present. Two injections were given.

Later the condition pointed to a sepsis, though there was no abdominal disturbance of any kind, or any sign of peritonitis either local or general in character. The lochia ceased on Dec. 21, eight days after delivery. A general hyperaesthesia of the skin all over the surface of the body was present. A slight pressure of the hand would cause the patient to groan with pain.

Van Cott's serum was administered at regular intervals but with no improvement in the symptoms.

When patient was admitted to the hospital large doses of veratrum veridi controlled the convulsions to such an extent that she never had any more.

The spasms of the jaw muscles and twitching of the facial muscles were controlled by the administration of large doses of bromide and smaller doses of chloral hydrate per rectum.

On Dec. 21, a loud systolic murmur was heard at the apex.

On Dec. 22, patient developed pulmonary edema and died at 12.20 A. M.

Heart was very feeble and pulse thready, with a deficit of about 10, a few hours before death.

Necropsy: Body of a young, slim built woman, light in complexion.

Signs of herpes about the lips. Mark of slight burn on right shoulder blade. No other marks or discolorations.

In opening up the abdomen it was apparent that there was no diseased condition of the intestines or peritoneum, as they were normal in every respect. In consequence there was no sign of a past or present peritonitis.

Uterus and adnexia normal. No evidence of sepsis. Subinvolution present. Involution about normal for post partum period, however. Uterus was cut into and a few small blood clots (unorganized) were seen over the placental emplantation site. No placental material or pieces of membrane found. No odor whatsoever present. Ovaries and tubes examined very carefully per gross specimen and found normal.

Liver normal in size, a little congestion present.

Spleen small in size with some congestion present.

Kidney capsules stripped with difficulty, very adherent. The organs were of a reddish brown color, granular in appearance. Arteries very markedly congested. Quantities of blood oozed from the cut kidney surface. Pyramids of a beefy red. Glomeruli deeply congested.

The brain showed the convolutions soft and congested. Arterioles markedly congested.

Along the longitudinal suture were seen brain areas of necrosis about the size of a dime (two in number).

Blood clot appearance on left side of brain near median line to the rear. This clot projected into the left ventricle, was about the size of a hen's egg and was mixed with reddish debris, and softened brain matter. Necrotic tissue in brain surrounding blood clot. Brain tissue in situation of blood clot appearance all broken down. The condition of brain softening was evidently present, which has been explained as a condition of red softening which consists simply of brain substance broken down into a reddish blood stained pulp. This softness precedes abscess as a rule. In this substance are found fragments of nerve fibres, drops of myelin, pus corpuscles and granular fatty cells. The tissue becomes infiltrated with fluid and leucocytes with considerable softening, at first uniformly red or mottled, the softened tissue acquires a change in color, due to changes in the hemoglobin. The nerve fibres nerve cells, and cells of the neuroglia become fatty and disintegrate.

A culture of a smear from the clot referred to was examined, and our pathologist report was that it contained the diplococcus intercellularis.

Conclusions: Briefly stated here was a patient in a condition of pregnancy, with all the symptoms of kidney disease, including convulsions, vomiting, headache, anemia, a leucocytoses of 16,000 high tension pulse, and linked with all these symptoms were all the classical symptoms of meningitis, excepting the condition of a negative spinal fluid; patient dying after all apparent means had been employed to locate her disease, and the necropsy showing the diseased condition in the left hemisphere of the brain, where there had never been the slightest sign to indicate the location of the abscess in this situation.

Operative evacuation of the abscess is the only treatment that can be considered, yet how impossible it is to operate when the symptoms bear no relation to the location of the abscess, as in this particular patient.

The statistics of Korner show that there is hope in many of these

cases by operation; of 76 cases in the cerebrum 42 patients were cured, 34 patients died; of 16 cases in the cerebellum 9 patients were cured, 7 died, i. e., 56 per cent of each were cured by operation. Without an operation the disease is, of course fatal.

ADDRESS OF THE PRESIDENT.

First Scientific Meeting of the Brooklyn Cardiological Society.
Held at Brooklyn, New York, January 31st, 1921.

Members of the Brooklyn Cardiological Society:

I desire to congratulate you on the fact that on this, our second meeting, we are ready to begin scientific work. Our first meeting, which was held on November 29th last, was necessarily devoted to formation and organization. Now that that work is completed we will start our scientific endeavor tonight by entering into the discussion of the field of usefulness of the polygraph and electrocardiograph in the diagnosis of cardiac disease.

It may be interesting to you to know that this is the first society organized to be devoted solely to the scientific consideration of cardiological problems. It is true that there are some organizations in existence given over to the consideration of the relief of persons suffering from heart disease but these organizations are purely sociological so that I believe I am well within the fact when I tell you that ours is the first society of its kind ever formed. Conceding this statement to be true and that Brooklyn has taken the lead in this direction, it cannot be regarded as selfish complacency if we feel some pride in the position in which we find ourselves tonight. To organize the first society consecrated to the study of a special branch of modern science which has for its ultimate aim the saving of human life and the relief of human suffering, is no mean thing; and when to this is added the fact that the society so formed is composed of carefully selected men whose special training enables them to raise the standard of medical education and to disseminate special knowledge by proper interpretation of the world's latest thought on the subject, the event may prove to be epoch-making.

And what is more natural than that Brooklyn should lead in this matter? Just as Brooklyn demonstrated her wisdom in the early handling of appendicitis (1887 to 1897), so is she able to demonstrate her early grasp and application of modern cardiological science. The community which produced Henry Ward Beecher, Walt Whitman, Mary Ainge De Vere (Madeline Bridges) Grenville T. Jenks, Joseph C. Hutchinson, George Ryerson Fowler, Alexander J. C. Skene, George MacNaughton, Benjamin F. Westbrook, Edward R. Squibb, John Byrne, Joseph H. Raymond, Algernon T. Bristow, should contain within itself power born of inspiration sufficient to develop cardiological genius as well.

The Brooklyn Cardiological Society is of the opinion that a society consisting of a few members, carefully selected, is better adapted to the discussion and dissemination of modern cardiological knowledge than would be a society with the same object in view of a larger and,

therefore, unwieldly character, hence the limitation of its membership. Our society is convinced that it contains the elements necessary to the best scientific results and it hopes, by studious observation and by expedition in the conduct of its affairs, to meet a much needed want and to become a credit to Brooklyn and to the whole scientific world. Of one thing you may rest assured: the high standard raised by the Brooklyn Cardiological Society will be maintained. As to this we are all of one mind. Neither medical politics nor commercial spirit nor personal aggrandizement shall intrude. Our society is now, and will remain, devoted solely to scientific endeavor and achievement.

It will be the policy of the Chair to recommend from time to time for your consideration such cardiological matters as seem to it to merit your attention, and to preside as expeditiously over your deliberations as possible, thus saving you time and labor. The Chair realizes that it must be the guiding hand and it accepts the responsibility placed upon it with a keen sense of the obligations imposed, but with the grateful confidence that its efforts are sustained and encouraged.

Permit me, gentlemen, again to congratulate you on your achievement, and to express my appreciation of your loyal support and cooperation.

WILLIAM J. CRUIKSHANK.





THE FOUNTAIN OF YOUTH.

IT was the magician in the story of Aladdin who used a time-honored artifice to gain possession of the wonderful lamp. He went about the streets calling out "new lamps for old," and the Princess, like her sisters of a newer generation, snatched at the bargain and got a nice, new, shiny lamp for the dirty, old, crusted one which she did not realize meant so much to Aladdin.

And now there comes one shouting through the city "New Glands for Old"! If you are a wizened-up, dried-out derelict of a man or woman, if you have gone the pace and have nothing but bitter memories left, if you have spent your energies for the good of others, or if disease has left you a victim of premature senility, do not despair. There is one who will, for a consideration, make you over, restore your function, renew your youth so that you shall rise up and astonish your household! We are not sure from a perusal of the circular that has come to us anent this marvelous discovery, whether a bald and hoary pate becomes covered with new dark hair, and a pendulous abdomen resumes the elastic firmness of youth, but we are assured that the dream of Ponce de Leon has come true. One pays a surgeon the modest fee of \$300, a trifling and painless operation is performed, and lo! one no longer potters around in the sear and yellow leaf, but is seized with an ambition to wear yellow spats and have his pants pressed! Later on he may even be tempted to buy a gardenia for his buttonhole. And then—but let us not indulge in voluptuous dreams, but hurry to the fountain-head and find out where all these marvelous privileges may be obtained and how much they cost.

One joins an organization, the name of which is copied so closely after the Life Extension Institute as to make one wonder why, pays the annual fee of \$3.00, forwards a doctor's certificate to a certain mail box, becomes a member of the League, and is privileged to pay \$150 to be rejuvenated. The originator of this remarkable discovery is a gentleman with a German name who hails from Vienna, and whose exploits are reprinted in some four pages of eight-point type purporting to come from the New York World of February 13, 1921. It is an alluring and glittering and withal an inexpensive bubble. We overheard an aged enthusiast cackling about it in the barber shop today. He had spent \$200 and pronounced the method a simple and painless one, and thought that he already felt, after two weeks, less pain in his old feet. It may be that being relieved of the weight of those 200 trade dollars had something to do with making his feet feel more comfortable, though as time goes by it is possible that he may

regret the investment. We are about to turn over the prospectus which we obtained to the Post Office authorities who may be interested to investigate the non-scientific side of the question, and we are writing to the Rockefeller Institute to substantiate a claim that they are cognizant of the investigations of this remarkable scientific discovery. A little later on the Journal will take great pleasure in being more specific so that those suckers who have been baited by this preliminary suggestion may be persuaded to come forward and pay us a commission for putting them in touch with the fount of rejuvenation. Have your money ready gents, for we insist on payment before admission.

H. G. W.

REWARDING CARELESSNESS.

THERE is talk of legislative activities on behalf of the increasing number of victims of automobile accidents. The exact details seem a bit vague, but the general notion seems to be to compel every owner of an automobile to take out a liability insurance of \$10,000 in favor of any one who may be injured by his car.

In the language of the vulgar this is a whale of a notion. Those who are called upon to drive through certain crowded sections of the city need no special prophetic vision to see in their thoughts anxious parents casting their superfluous children in the way of the advancing juggernaut at \$10,000 each. One is reminded of the old Italian whose son was killed in a railway accident—A bright young lawyer had read of the case, wrote quickly and obtained a power of attorney, sued for \$5000 and forwarded \$2500 to the old folks across the sea. The old man wrote him a sincere letter of thanks, and told him he had two other sons whom he would be glad to send over upon the same terms.

It has long been the editorial conviction that liability insurance puts a premium on carelessness. If one is his own driver he soon realizes that there are two classes of drivers of whom he must beware; the occasional amateur who drives on holidays only, and the professional hired chauffeur, especially those who drive trucks and public conveyances. The very fact that their employers are covered by a bond and protective insurance relieves them of all responsibility and seems to make them utterly reckless of the other fellow's safety. In making this statement one does not for one moment forget those accidents which occur as a result of drink or drugs, nor the unpreventable ones arising from the heedlessness of pedestrians. Indeed the newspapers of the day upon which this is written record three serious accidents including a policeman who was struck by a taxicab; a boy who fell from the back of a truck where he was stealing a ride; and a pedestrian who stepped from the curb directly in front of a moving car. The automobile has not only come to stay but in course of time is likely to preempt many of the public thoroughfares from which pedestrians will be excluded because of their utter neglect of their own safety. There will be increasing accidents because of heedlessness and the lack of that spirit which considers the other fellow first. But if every pedestrian knows that the law has promised him a substantial reward in case of injury human nature is so constituted that he will

take larger chances, and accidents will increase. The way to enforce more careful driving is to compel personal responsibility on the part of the individual driver, and not to relieve him of that responsibility by shifting the financial burden to the shoulders of insurance carriers.

Should this proposition contemplate a state insurance fund the question becomes even more absurd. The matter is one which appeals to physicians particularly, because they, more than any other class, are compelled to use automobiles in the pursuit of their profession. Think it over, doctor—and if you hear an enthusiast urging compulsory insurance explain to him how it not only puts a premium on carelessness, but adds one more step in the direction of state socialism.

H. G. W.

ONE HUNDRED YEARS AGO.

TO be exact it was ninety-nine years ago that the medical profession of Brooklyn gathered itself together and organized the Medical Society of the County of Kings. In those high and far-off times the practice of medicine was conducted in a very different way, and under very different auspices from these degenerate days. Then, in order to be a physician, one was compelled to wear a long black coat and a high hat, and if he was sufficiently prosperous, carry a gold-headed cane. It is within the memory of one who is still practicing medicine in Brooklyn that the innovation of a business suit created a great deal of unfavorable comment, and even some talk of expelling the member from the Society. There was also a different language spoken—a sort of semi-classical jargon that served to impress the ignorant at the same time that it cloaked ignorance.

It is not in the editorial mind to write a history of Brooklyn medicine, nor to moralize on modern decadence, nor to compare the present generation with its gratgrandfathers: but the occurrence of a one hundredth birthday is something which in this country is rare enough to call for something more than passing mention. Ruskin says that "We are children of a mighty race, trained by surrounding art." The medical profession is an ancient and an honorable calling that has indeed supplied the surrounding art to produce generation after generation each better than the last. And gratitude to those who have made our present high standing possible demands that on an occasion of such moment we should do honor in a substantial way, not only to the memory of those who have gone before, but as a monument which shall stimulate those who are to come after.

As year has succeeded year the Medical Society of the County of Kings had developed into a body that is unique in many ways, and not least among its accomplishments has been the accumulation of its notable library and the building of its home. The foresight, the vision and the faith of those who brought this to pass calls for substantial recognition. It seems generally agreed that this is the appropriate time to provide generously for the normal expansion and growth of the library. Statements by members of the Committee who have this matter in charge appear on another page, and amply express the Committee's purpose and its hopes. Therefore, it is not necessary to make any particular plea other than to point out that the profession

of medicine in Kings County has an opportunity that they cannot afford to let slip. It is for them to recognize how great a privilege is theirs in helping to establish more firmly the splendid educational opportunities which their library affords.

The Chairman of the Publication Committee of the Associated Physicians of Long Island, in the report printed in the February issue of this Journal, points out an opportunity whereby the library may be made of tremendous value to those physicians who live upon Long Island outside of Brooklyn. The suggestion is made that a local distributing branch might be established in Jamaica for the advantage of those who desire to draw books, but who may not have the time to journey to Brooklyn. And the Association at the same meeting decided to distribute a periodical list of new books added to the library to all its members from time to time. To make this possible it is essential that a much more generous income shall be assured to the library, and it is just here that every physician in Brooklyn can help. It is not a case of compulsion, but one of opportunity and privilege. One has but to consider what cooperation in the past has done by providing the library, to appreciate the tremendous forward step that an adequate endowment would make possible. To contribute to such an endowment and thereby to help the spread of medical enlightenment is an opportunity that should be greeted with enthusiasm. Should every physician contribute a modest sum the total would be far in excess of the figure which the Committee has placed as a conservative goal. It would indeed be a splendid accomplishment to be able to provide both an endowment and an expansion of the present building. In talking with the members of the Committee and in considering the possibilities of this centenary fund, one feature must be clearly emphasized. The spirit which determines the giving must be one of willingness and not of compulsion, because the gifts should come from a spirit of appreciation of what we have received from the past, and of grateful determination to expand our privileges for the future.

H. G. W.



CENTENARY CELEBRATION COMMITTEE

THE Centenary Celebration Committee of the Medical Society of the County of Kings in studying means by which the Centenary of the Society could best be celebrated arrived at the conclusion that the most fitting memorial would be the placing of the Library on a sound financial basis. This means that proper provision be made for the care of the existing collection and for the expansion of the at-present inadequate plant.

To accomplish this a mortgage of \$25,000 must be canceled, a necessary enlargement of the plant at an estimated cost of \$125,000 be carried out and an endowment fund of at least \$100,000 be provided.

Acting on this suggestion the Trustees and the Council of the Society, the official custodian of the Library Building, has requested the Centenary Celebration Committee to issue this appeal.

The appeal is sent to you, the medical profession of Brooklyn, in order that you may have what we know you will welcome as a privilege, that of giving to a necessity to medical progress.

Libraries are the records of the Past and the dreams and possibilities of the Future. Medical books are experience and experience is the backbone of Medicine.

Little did those idealists of a fast disappearing generation dream that in a few short years the results of their labor for what was then their library and is now ours, would prove inadequate. The mantle of proud possession has fallen from their shoulders to ours, and ours the prideful task to fulfill its obligations.

Our Library is one of the great Libraries of the world. In order that its station may not grow less we ask you to give generously.

RUSSELL S. FOWLER, Chairman.

Elias H. Bartley, M. D.; A. H. Bogart, M. D.; William Browning, M. D.; Glentworth R. Butler, M. D.; William F. Campbell, M. D.; Charles N. Cox, M. D.; H. Beeckman Delatour, M. D.; Zachary T. Emery, M. D.; Henry A. Fairbairn, M. D.; James W. Fleming, M. D.; Russell S. Fowler, M. D.; Jacob Fuhs, M. D.; Charles H. Goodrich, M. D.; Onslow A. Gordon, Sr., M. D.; Frederick C. Holden, M. D.; Albert M. Judd, M. D.; J. Richard Kevin, M. D.; William Linder, M. D.; Sylvester J. McNamara, M. D.; John C. MacEvitt, M. D.; A. Ross Matheson, M. D.; John O. Polak, M. D.; Lewis S. Pilcher, M. D.; Ralph H. Pomeroy, M. D.; Jonathan S. Prout, M. D.; Jacques C. Rushmore, M. D.; Joshua Van Cott, M. D.; James H. Winfield, M. D.

In 1922 the Medical Society of the County of Kings will celebrate the one-hundredth anniversary of its founding.

How shall this event be adequately celebrated?

Remember we are not celebrating simply one hundred years of existence; we are celebrating the growth and fruition of an idea.

As the symbol of that idea stands our Medical Library—a fitting monument of a century's achievement.

As a profession, this is our treasure-house.

At its shrine we gather and contemplate with reverence the garnered wisdom of twenty-five centuries.

The passing years have made us the custodians of this priceless estate.

Can we keep faith with ourselves by a shabby indifference to its vital necessities?

Can we keep faith with the future except by transmitting this legacy, enhanced in value and secured in permanency?

This anniversary occasion cannot be circumscribed by anything so transient as a banquet and a few formal addresses.

Unless we renew our faith and loyalty by pledging an endowment of \$250,000 we have utterly failed to grasp the significance of this historic event.

This means a profession united in the noble purpose to make its treasure-house solvent and secure, now and in perpetuity.

W. F. CAMPBELL.

A Medical Library is important and deserving of the support both of the profession and the community at large for the following reasons; 1—The encouragement of learning and stimulation of research; 2—The preservation of the records of the past and to make available the achievements of the present; 3—The promotion of high ethical standards; 4—The fostering of the spirit of fellowship among the physicians of the community; 5—To place at the command of the youngest and poorest physician all medical knowledge past and present.

The wealthiest as well as the poorest member of every community has a supreme interest in promoting among the physicians of a community the highest degree of scientific knowledge and the most humane ethical spirit.

To make surer for himself the most certain relief possible in the overwhelming calamity which is sure to overtake him, libraries, schools, clinics, hospitals, high standards of education are, therefore, of supreme importance to the citizen much more than to the individual physician.

L. S. PILCHER.

Columbia University
in the City of New York.
Department of Semitic Languages.

Mar. 4, 1921.

Doctor Russell S. Fowler,
Brooklyn, N. Y.

My dear Doctor:

News has reached me of your plans for the perpetuation and improvement of the Library of the Kings County Medical Society, and, having the welfare of science at heart, I take the liberty of expressing to you my heartiest commendation. A properly equipped library is the greatest treasure house that any community or group possesses, preserving to the present the sum total of the energies of the past, and to coming ages the energies of the present. Human progress would be unthinkable if each generation of scholars could not climb upon the shoulders of those that went before, and if each generation took

its knowledge that it gained in years of toil along to the grave. Those of us who have made the history of dead civilization their special study know how many of the fruits that they bore are still enjoyed by us today. Impossible would have been the rise of modern science in its whole gigantic strength if it had not been for the fact that the libraries of mediaeval monasteries preserved the books of the ancient Greeks, which became the textbooks for the scholars of the period after the Reformation. These books taught them scientific method, and gave them scientific terminology and a wealth of truths for discussion. This is true in medicine as well as in theology, philosophy and philology. For this reason the upbuilding and upholding of such a library as that of the Kings County Medical Society becomes a moral duty. *Vita brevis, ars longa!* and that the medical art may endure and grow ever more perfect and skilled must be the wish of every one. The modern library should contain the harvest of the world's knowledge. To this end the acquisition of the entire international literature in a given scientific branch is necessary, and to make it accessible for purposes of research a proper equipment is a desideratum. How important this is for the welfare of the community, and how boundless the influence of such a storehouse of learning can and will be, can only be estimated by those of us who like yourself have an insight into the processes moulding our civilization. I hope, for the sake of the public weal, that your plans will be supported and carried out.

Very Sincerely yours,
E. G. H. KRAELING.



DR. J. S. COOLEY.

THE field of the practice of medicine has a far wider scope than that of attending the sick, although that will continue to be the principal activity of the great majority of practitioners for years to come, or until the people themselves recognize the value of preventive medicine and demand its application to their own selves. Many pioneers in the practice of preventive medicine are still living, and it is a privilege that comes to few organizations of physicians to recognize the abilities and achievements of one who years ago abandoned private practice to promote the new specialty of public medicine. On January 26th, the members of the Queens-Nassau Medical Society gave a dinner in honor of Dr. James S. Cooley, who had served as its secretary for twenty-nine years, and is now about to become secretary of the Nassau County Medical Society, as the older organization resolves itself into two societies, one for each county.

Dr. Cooley, in his own experience, illustrates the evolution of the practice of medicine. Starting in private work, he practiced public health as a health officer, and finally took up the most advanced phase which has yet been reached,—that of educating the people, particularly along health lines. But in all his activities he carefully observed the fundamental requisites which many public health workers are prone to forget,—that of keeping in close touch with private practitioners on whom will always rest the responsibility for the first line of defense against communicable diseases and for the promotion of bodily efficiency. While to school teachers Dr. Cooley is a School Commissioner, yet to physicians he is always a doctor. He exemplifies the rare and desirable combination of efficiency in the newest lines of public health work, and sympathy and friendliness toward those who practice the older lines of medicine.

TO DR. J. S. COOLEY

January 26, 1921

Six days it took the Lord to make the earth
A fit abode for man, and to create
A human soul to whom by Godly birth
Was given power divine to dominate
The whole created Universe if he
Should be obedient to that heavenly Voice
Which tells the sons of men unerringly
Between the good and bad to make their choice.
His first day's work, to light the glowing sun;
His last, to illuminate the human mind.
To carry on the work then well begun
Is yet the task of those who love mankind,
Divinely chosen to be priests of Him
Who heals both soul and body by His grace,
And fills our cup of mercy to the brim
And keeps us in the image of His face.

To each physician comes the priestly call
To give relief from every evil plaint.
And his abode is a confessor's stall
Where congregate the sinner and the saint,
Prepared to do hard penance to atone
For sin confessed and absolution sought
With many a prayer, and contrite tear, and groan,
Believing quick forgiveness can be bought
From one whose miracle-performing power
Attests him as the anointed one who holds
The keys of death and life until that hour
When to ripe years the sinner's course unfolds.

To some physicians comes the higher gift
Of prophecy that they may timely warn
The sinner of the judgment sure and swift
On those who hold the laws of God in scorn.
With inspired vision they discern afar
The danger signs and urge that men should flee
From wrath to come for mortal sins that mar
Both soul and body through eternity.
But men unheeding pass and fondly cling
To favorite sins committed o'er and o'er,
And then in terror, ask the priest to bring
Forgiveness and the help they scorned before.

A chosen few endowed with gifts to teach
New truths revealed to those with sight refined
Obey the urgent call to go and preach
The gospel of good health to all mankind,
That each frail human body yet may be
An instrument well fitted to perform
The deeds planned through the soul's high ecstasy,
Which to the mold of God's own will conform.

Blest is the priestly doctor comforting
Both soul and body though he fail to heal.
Blest, too, the prophet doctor who can bring
Unwilling sinners in remorse to kneel.
Most blest is he who to a child can show
A vision of rich life abounding bright
With joy and fruitfulness, that it may grow
To man's estate safe led by heavenly light.

FRANK OVERTON.

MINUTES OF A REGULAR MEETING OF THE MEDICAL SOCIETY OF THE COUNTY OF KINGS

February 15, 1921.

The meeting was called to order at 8.30 p. m. Dr. Bogart presiding. There were about 80 members present.

The minutes of the previous meeting were read and approved.

Report of the Council.

The Council reported favorably upon the following applications for membership:

Kerson W. Barney, 126 Rogers Ave., L. I. C. H., 1920; H. A. Morris; Harold Nexsen; Jan. '21.
Jacob Beckenstein, 1590 St. Marks Ave., L. I. C. H., 1917; J. B. Plotkin; S. J. Cohen; Jan. '21.
Harry S. Bikoff, 66 Lewis Ave., Univ. & Bell, 1918; B. B. Berkowitz; Samuel Linder; Jan. '21.
Louis A. Bonvicino, 7309 Third Ave., P. & S., N. Y., 1916; M. Lombardo; Memb. Com.; Dec. '20.
Wilfred V. Egan, 391 Union St., L. I. C. H., 1914; Augustus Harris; Memb. Com.; Jan. '21.
John A. Gildersleeve, 7325 14th Ave., P. & S., N. Y., 1912; A. H. Bogart; H. B. Matthews; Jan. '21.
Julius Kaufman, 4714 12th Ave., P. & S., N. Y., 1917; J. B. Plotkin; M. J. Dattelbaum; Dec. '20.
Sandor A. Levinsohn, 1081 Eastern Pkwy., Univ. & Bell, 1918; R. Schillinger; P. Goldfader; Jan. '21.
William Morris, 1642 Union St., P. & S., N. Y., 1918; A. L. Henkin; I. D. Kruskal; Jan. '21.
Joseph C. Regan, Kingston Avenue Hospital, Univ. & Bell, 1913; H. L. Ratnoff; Memb. Com.; Jan. '21.
Emilio C. Sauchelli, 1841 85th St., L. I. C. H., 1918; J. Sarnoff; E. H. Mayne; Jan. '21.
George R. Shapiro, 141 Bergen St., Virginia, 1917; S. A. De Yoanna; J. R. Valinoti; Jan. '21.
Samuel L. Siegler, 500 Hopkinson Ave., Fordham, 1918; Morris L. Levy; E. L. Hergert; Jan. '21.
J. Parker Talmadge, 173 Amity St., Albany, 1902; Richard E. Shaw; C. W. Stickle; Jan. '21.

For Reinstatement

Morris Mendalis, 173 Jamaica Avenue, L. I. C. H., 1909; Feb. '21.
Charles E. Panoff, 267 Utica Avenue, L. I. C. H., 1903; Feb. '21.

By Transfer

Thomas B. Wood, 155 Herkimer Street, Cornell, 1911, (From Queens-Nassau Medical Society); Feb. '21.

Election of Members

Joseph Abrams, 176 Lewis Avenue, Univ. & Bell, 1919; R. S. Fowler, John Horni; Dec. '20.
Adolph V. P. Fardelman, 1402 Bushwick Avenue, L. I. C. H., 1916; W. F. Campbell, G. H. Reichers; Dec. '20.
Manning C. Field, 98 Remsen Street, P. & S., N. Y., 1916; F. H. Richardson, W. H. Field; Dec. '20.
Victor Giantieri, 163 Washington Park, Univ. of Pa., 1917; M. F. R. Savarese, Memb. Com.; Dec. '20.
Joseph L. McGoldrick, 434 73rd Street, Cornell, 1916; C. E. Rynd, T. A. McGoldrick; Nov. '20.
Max Mensch, 962 St. Marks Avenue, Univ. & Bell, 1915; P. E. Wesenberg, E. G. Hynes; Dec. '20.
Charles F. Nicol, 442 Gates Avenue, P. & S. Balt., 1913; John H. Flynn, J. J. Collins; Dec. '20.
J. Edwin Shack, 666 Hendrix Street, L. I. C. H., 1916; J. B. Plotkin, M. J. Rattelbaum; Dec. '20.
William E. Skidmore, 395 Park Place, L. I. C. H., 1913; W. A. Jewett, S. B. Schenck; Dec. '20.
Hyman Teperson, 1480 Eastern Parkway, L. I. C. H., 1916; J. B. Plotkin, M. J. Dattelbaum; Dec. '20.

Applications for Membership have been Received from the Following

Herbert S. Anderson, 386 Clinton Street, L. I. C. H., 1896; Gordon Gibson, H. B. Matthews; Feb. '21.
George H. Davis, 623 8th Avenue, P. & S., N. Y., 1918; H. B. Matthews, H. G. Webster; Feb. '21.
Harry Feldman, 28 Broome Street, Univ. & Bell, 1916; F. D. Jennings, Alfred Bell; Feb. '21.
Elias A. Lessem, 1800 St. Johns Place, Univ. & Bell, 1918; W. A. McLaren, J. J. Wagner; Feb. '21.
George G. McElvare, 868 Park Place, P. & S., N. Y., 1915; J. M. Scannell, W. J. McCullough; Feb. '21.
Mervin C. Myerson, 184 Clinton Street, L. I. C. H., 1917; Augustus Harris, H. Arrow-smith; Feb. '21.

Edward H. Nidish, 255 Schenectady Avenue, Univ. & Bell., 1916; Augustus Harris, Wm. Pfeiffer; Feb. '21.

Leo S. Sacharoff, 45 Stuyvesant Avenue, P. & S., N. Y., 1919; E. L. Hergert, H. S. Fischer; Feb. '21.

Joseph G. Terrence, Norwegian Hospital, L. I. C. H., 1920; P. J. Genthner, H. F. Graham; Feb. '21.

John A. Timm, 184 Clinton Street, Univ. Minn., 1918; R. F. Seidensticher, E. K. Tanner; Feb. '21.

G. Marjorie Williams, 102 Lefferts Place, Syracuse, 1918; Elizabeth A. Bruyn, H. B. Matthews; Feb. '21.

The following resolution was adopted:

Resolved; that the Medical Society of the County of Kings, alarmed by the introduction of Typhus Fever into New York City, second the efforts of the Health Commissioner and Officer of the Port in the use of all possible precautions to keep infected cases out of the city."

The following letter from the Chairman of the Legislative Committee was read:

Legislative Committee
Kings County Medical Society
Meeting held Feb. 9, 1921
Full attendance

"The rules and regulations promulgated by the Department of Narcotic Drug Control of the State of New York under date of Dec. 27, 1920 were discussed and the following resolutions adopted:

Whereas: The legislative committee of the Medical Society, County of Kings, State of New York, are unanimously opposed to the rulings of the Department of Narcotic Drug Control of the State of New York under date of Dec. 27, 1921, therefore be it

Resolved: That we are in favor of any oral restraint that may be placed on drug addicts provided it does not interfere with a practitioner of medicine ministering to the needful wants of his patients.

"That we propose revision of all these regulations by a special committee of five (5), three (3) of whom shall be physicians appointed by the President of the New York State Medical Society one (1) shall be a pharmacist appointed by the President of the New York State Pharmaceutical Society and

one (1) shall be a dentist appointed by the President of the New York State Dental Society—This committee to co-operate with the Department of Narcotic Drug Control.

"That we believe, in the interests of the public health, that these regulations should be suspended until revised in so far as they affect persons other than drug addicts."

(Signed) Jos. A. DRISCOLL, M. D.

Chairman.

On motion, the resolutions contained in the letter were adopted.

The following telegram from the Commissioner of Narcotic Drug Control was read:

"Albany N. Y. Feb. 15, 1921.

"Dr. Ed. E. Hicks,

1168 Dean Street, Brooklyn.

"In view of our conference yesterday I will very gladly meet a committee such as you suggested to discuss with them regulations twelve and sixteen of this department. Will you arrange with me personally for a date for such conference? Pending the conference the operation of regulation number twelve is hereby suspended until March 10, 1921."

(Signed) WALTER R. HERRICK,
Commissioner."

On motion, a rising vote of thanks was extended to Dr. Hicks.

On motion, the President was urged to send a special appeal to all those members who have not as yet paid the special \$2 assessment of the New York State Medical Society for 1920.

Scientific Meeting

(Joint Meeting with the Medical Library Association of Brooklyn.)

Paper: "Operation and Prognosis in Cancer of the Breast." (Illustrated with lantern slides.) By John E. Jennings, M. D.

Paper: "Community Interests from the Standpoint of the Medical Library." By Colonel Fielding H. Garrison, U. S. A., Library, Surgeon General's Office, Washington, D. C.

The meeting adjourned at 10:30 p. m.

LEWIS P. ADDOMS,
Secretary.

Medical Book News

BOOK REVIEW SUPPLEMENT TO THE LONG ISLAND MEDICAL JOURNAL

Edited by JAMES M. WINFIELD, M.D.

All communications, books for review, etc., should be addressed to the Editor of this Department, 1313 Bedford Ave., Brooklyn, New York

1921, No. 3

MARCH, 1921

5 PAGES

PSYCHOLOGY OF FUNCTIONAL NEUROSES.

THE PSYCHOLOGY OF FUNCTIONAL NEUROSES. By H. L. Hollingworth, Associate Professor of Psychology in Columbia University. New York & London, D. Appleton and Co., 1920. 259 pages. 12mo. Cloth, \$2.00.

Professor Hollingworth, during the world war, was accorded exceptional opportunity for study of the functional neuroses, due to his appointment as psychologist to U. S. General Hospital No. 30 at Plattsburg, N. Y., a hospital especially designated for the care of soldiers with persistent psychoneurotic symptoms. Here he was enabled to make a detailed study of some 1200 consecutive cases, the results being embodied in the excellent little work bearing the above caption. In the study of the psychoneurotic individual, Prof. Hollingworth advances a theory to explain his mental make-up which is based upon Hamilton's term "reintegration" advanced many years ago to indicate the tendency of a complex idea to be reinstated upon the occurrence of one of its constituent parts. That a part of an idea may occur is doubtful, hence Hamilton's use of the concept fell into disrepute, but that a part of a stimulus may occur and that such a partial stimulus may provoke a reaction previously made to the complete stimulus, is the theme upon which the author has erected a most admirable and logical thesis to explain the workings of the neurotic mind. It is a refreshingly clear and concise argument in striking contrast to the so frequently labored explanations of the psychoanalyst in the same domain and does not leave the feeling that one's credulity has been strained. It is a book that should be of interest to every physician as well as to the neurologist and psychiatrist.

FORM AND FUNCTIONS OF THE CENTRAL NERVOUS SYSTEM.

THE FORM AND FUNCTIONS OF THE CENTRAL NERVOUS SYSTEM. An Introduction to the Study of Nervous Diseases. By Frederick Tilney, M. D., Ph. D., and Henry Elsom Riley, A. M., M. D. New York, Paul B. Hoeber, 1921. 1020 pages. 591 figures containing 763 illustrations. 8vo. Cloth, \$12.00.

To review this treatise fully would require a battery of experts. The most that one individual can do is to touch on a few points. It is in the best sense monumental and comprehensive, something any practitioner will find most useful for reference, and the special worker must have at his elbow. It is a storehouse of two kinds, facts and their "dynamic significance," the most advanced in any language. It tells how the nervous system serves "the living animal." Such works, like an X-ray plate, usually require an interpreter; here this is accomplished by the work itself.

It has been known for some time that Tilney was engaged upon an incisive work on the brain. That it could be completed in even a lifetime is a marvel. Hard to say which is the more admirable, the scholarship or the energy evinced. Some foretastes have appeared. The cerebellar portion, for instance, is enlarged from his article in 1919.

A quarter of the text is devoted to the rhombencephalon (oblongata pons and cerebellum). This with the move addition of an embryological section represents a favorite field of the leading author. It is a very welcome presentation, and perhaps the strongest feature of the work.

A variety of fine illustrations, anatomic, clinical and diagrammatic are interspersed, in part new and often emphasized by color.

"The nervous system probably holds the entire transcription of the changes which have occurred during the evolution period."

As this is a first edition and covers so much ground, any comments are not to be taken as criticism but only as suggestions for completeness in later issues.

Certain bilateral or conjugate functions might bear a full consideration. The clinician needs physiologic guidance here.

Then the importance of true terminal or end-arteries and of the partial varieties seems hardly suggested. In fact the frequent use of the word terminal in the general and not in the strict sense is misleading. This is not so much a slip or an oversight as it is an entire failure to grasp fundamental principles. If indiscriminate brain-arteries are to be called terminal, then some more definite term should be applied to such as have been so-called. Anyway their existence and bearing should be recognized. The brain circulation is so special a subject, so different from that of the rest of the body, and so distinct a field from that of the neuro-parenchyma that it can only be handled well by special workers.

A convenient glossary is appended. And the publisher has accomplished his part superbly well. Both the authors and the medical public are to be congratulated on the appearance of this erudite work.

W. B.

PSYCHOPATHOLOGY.

PSYCHOPATHOLOGY. By Edward J. Kempf, M. D. St. Louis, C. V. Mosby Company, 1920. 762 pages. 87 illustrations. 8vo. Cloth, \$9.50.

Now and then a genius springs from out of our midst. Kempf is such a genius, and he shows it in giving to American Medicine the greatest book produced in the psychiatric field in this generation. There is no book in any other language to compete with it, for this work is original with Doctor Kempf. In the early part of his career he had the good fortune to be inspired by his close associations with Adolf Meyer and William White.

Accepting the James-Lange theory of the peripheral origin of the Emotions, and by close study of the physiology and pathology of the Autonomic Nervous System, he evolved a complete mechanistic interpretation of psychopathological phenomena.

His classification embraces five major groups,—suppression, repression, compensatory, regression and dissociation Neuroses. These five groups include all forms of psychoses and neuroses,—(he does not use the term psychoses)—found in the Kraepelinian Classification.

As Kraepelin brought the old psychiatry out of a chaotic state, with his clear descriptions of definite symptom-complexes, and as Freud brought out his psychoanalytic theory

and showed the great importance of the unconscious in psychopathology, so has Kempf further enriched medicine by his mechanistic theory,—of psychological phenomena based on physiological reactions. And this theory will appeal to all medical men, particularly those who wish a definite etiology, in place of "psychic energy" or "conversion."

It is impossible, of course, in a short review to go into details, and to do justice to this book. It demands close study. Before reading the book through, one should become thoroughly acquainted with his explanation of the conditioned reflex; of the unconscious wish; and the effect of the emotions on human behavior.

Kempf is a good example of the scholarly critic of Freud. For instance, he criticises Freud's conception of the conversion in hysteria, but he does it in a constructive manner. And unlike some critics of Freud, even some who "have met Freud personally," he uses a great deal of Freud's philosophy, and is pleased to acknowledge his indebtedness. He severely arraigns those critics of psychoanalysis, who—though the subject, like any other special method, takes years to master,—feel competent to adversely criticise psychoanalysis, without any real study at all. It must be remembered that because a man has practiced neurology for twenty years, that does not make him a mental expert, any more than an orthopaedic surgeon is a good judge of surgical conditions in the abdomen.

There is no doubt but that this book will revolutionize the study and practice of Psychiatry. It is a masterpiece.

JOHN F. W. MEAGHER.

THE MICROBIOLOGY AND MICRO-ANALYSIS OF FOODS.

THE MICROBIOLOGY AND MICROANALYSIS OF FOODS. By Albert Schneider, M. D., Ph. D. Philadelphia, P. Blakiston's Son & Co., 1920. 262 pages. 131 illustrations. 8vo. Cloth, \$3.50.

This work is indeed a valuable addition to any library and is the first text dealing with the subject of microbiology and microanalysis which it has been the reviewer's pleasure to read. It will bridge the gap between the chemical and bacteriological examination of food and food-products and aid the analyst to render his report with greater confidence.

Dr. Schneider has succeeded in presenting the subject in a concise and interesting manner and gives us the means of employing well chosen methods of analysis.

In addition to being a book of reference it should find a place as a student's text whether he be interested in chemistry, bacteriology, biology or dietetics.

The reviewer can recall many past incidences where a text of this nature would have been of inestimable value to him.

R. F. H.

CEREBROSPINAL FLUID.

PHYSIOLOGY AND PATHOLOGY OF THE CEREBROSPINAL FLUID. By William Boyd, Professor of Pathology, University of Manitoba. New York, The Macmillan Company, 1920. 176 pages. Illustrations. Plates. 8vo. Cloth, \$5.00.

This is a very pleasing and readable book. Type is clean-cut and paper fair. The author must be congratulated for putting in such a clear and concise manner the subject that up to the present time has been touched upon only too lightly in the text books on Laboratory Diagnosis. He has made a special study of a special fluid and has imparted his findings and knowledge in a delightful and interesting way. It is a work which should be in the hands of every laboratory worker and naturally will become a reference book. His general considerations of the Cerebrospinal Fluid are admirable.

ALFRED BELL.

firm foundation for the student's future study of biochemistry. There is an abundance of valuable exercises which the author has condensed into this small volume, and throughout the text are many experiments which cannot be found in most laboratory manuals. In all cases the chosen experiments fulfill the needs of a student of medicine, and the concise and comprehensive manner in which the various tests are set forth adds an additional value to the work.

The chapter on colloids, which is not found in the first edition, is a special feature of the text. Dr. Steel's presentation of this interesting subject, from a practical viewpoint, is simple, clear, and complete. Physicians interested in this branch will find in the chapter on colloids a ready reference for many of the phenomena exhibited by this class of substances.

R. F. H.

HYGIENE OF COMMUNICABLE DISEASES.

HYGIENE OF COMMUNICABLE DISEASES. A Handbook for Sanitarians, Medical Officers of the Army and Navy and General Practitioners. By Francis M. Munson, M. D. New York, Paul B. Hoeber, 1920. 793 pages. Illustrated. 12mo. \$5.50.

This book presents in a concise and readily accessible form information concerning the management of communicable diseases and their epidemiology.

Part I deals with Epidemiology, Prophylaxis and Sanitation, and each chapter is a complete article in itself on the subject in question; for instance—School Sanitation, Prison Sanitation, etc. One chapter which is a new feature in textbooks on hygiene is Chapter XIX—"Sanitary Measures Following Great Disasters."

Part II, dealing with the individual communicable diseases, follows the scheme of the Committee on Standard Regulations of the Amer. Pub. Health Assn.

For a book so well written as this and containing the wealth of information which it does, the index is poor. It could well be double its size without being unwieldy.

E. H. M.

LABORATORY MANUAL OF ORGANIC CHEMISTRY.

LABORATORY MANUAL OF ORGANIC CHEMISTRY. By Harry L. Fisher, Ph. D. New York, John Wiley & Sons, Inc., 1920. 331 pages. Illustrated. 8vo. Cloth, \$2.25.

The experiments in this text are especially selected for the beginner in Organic Chemistry, particularly those students who are being trained in the field of commercial chemistry, and it forms an admirable foundation for the prospective medical student's further study of the subject.

All the experiments are the result of several years' teaching, and any corrections or modifications in technique have been carried out to meet the needs of the student.

Part I is devoted to general elementary organic chemistry, while Part II is devoted to organic combustion.

The questions which follow each chapter are designed to further the student's reasoning, and imparts a general knowledge as to why the various phenomena take place.

R. F. H.

LABORATORY MANUAL OF ORGANIC CHEMISTRY.

LABORATORY MANUAL OF ORGANIC CHEMISTRY FOR MEDICAL STUDENTS. By Matthew Steel, Ph. D. Second Edition, revised and enlarged. New York, John Wiley & Sons, Inc., 1920. 284 pages. 8vo. Cloth, \$1.75.

In Dr. Steel's second edition we find a text that meets the demand for a laboratory manual of organic chemistry which lays a

PATIENTS' HANDBOOK ON THE TREATMENT OF DIABETES MELLITUS.

PATIENTS' HANDBOOK ON THE TREATMENT OF DIABETES MELLITUS. By Thomas W. Edgar, M. D., Associate Editor on Diabetes, Western Medical Times; Author of Psychology of Prognosis; Edgar Serum Treatment of Diabetes; Limitation of Starvation in Diabetes. Member of American Medical Association, New York County Medical Association, Audubon Medical Association, American Narcotic Society, Association for the Study of Internal Secretion, Director Riverside Diabetic Clinic. Boston, Richard G. Badger, 1920. 100 pages. 12mo. Cloth, \$2.00.

The above title page of this 100-page book may impress favorably the diabetic patient of the author; it does not thus impress the reviewer, especially when he discovers the above mentioned publications are brief articles in the current medical journals. The publishers have evidently taken liberties with the author as he probably did not sanction the following statement on the paper cover of the book: "The author, Dr. Thomas A. Edgar, is a graduate of one of America's leading universities and has spent time in research both in this country and abroad. He received the Glover C. Arnold prize from his university in 1913, and has continually since this time devoted his time to the study and treatment of diabetes. He is a member of the American Medical Association," etc., as already given on the title page.

Forty pages of this one hundred page book consist of tables, many of which have been published elsewhere. Information has been sacrificed for brevity.

From the following statements near the conclusion, the reviewer leads the reader of this review to draw his own conclusions: "Each case needs personal treatment, as each and every case is different from the other, and what is meat and raiment for one is poison to another. For this reason I am not in the habit of taking more cases than I can attend to in a thorough manner conducive to the health of my patients." On the following page, in the last paragraph of the book, we find: "I have made it a practice to limit the number of cases I see and talk with daily for this reason, and since instituting this procedure my results have become evident, and my patients happier, healthier, and more thankful."

HENRY M. MOSES.

MYELOMCRANKHEIT.

UNTERSUCHUNGEN UEBER DIE MYELOMCRANKHEIT. Von Arvid Wallgron. Uppsala & Stockholm, Almqvist & Wiksells, 1920. 151 pages. Plates. 8vo.

This excellent monograph on Myeloma covers the subject most exhaustively from every possible angle. The important points in the diagnosis are advanced age, localized bone pains of severe character aggravated by movement, localized bone tenderness especially over ribs, sternum, and vertebrae, increased flexibility of bones, spontaneous fractures of ribs, presence of Bence-Jones protein body in urine. The relation to serum albumin of the Bence-Jones body is discussed, together with its mode of production in myeloma and other diseases of the bones. The pathology of the disease is splendidly discussed and in great detail. Finally, reports of 14 cases with clinical history, physical examination, post-mortem and histological investigations, together with pathological microphotographs make a valuable addition.

M. A. RABINOWITZ.

FRENCH-ENGLISH MEDICAL DICTIONARY.

There can be no doubt there is great need of just such works as this to assist the reader of foreign languages in the intelligent consideration of medical and allied subjects in tongues other than his own.

The average dictionary of these languages, no matter how voluminous or unabridged, seldom gives any medical terms at all, and even then hardly ever in the true technical sense.

Any fault which may be found with Dr. Gordon's book must in all fairness be slight; for instance, it would seem that it gives too many instances of the aspiration of the letter "H," which is extremely rarely aspirated in French. Again, it would have been a great help if the gender of the nouns had been set forth, inasmuch as this is a stumbling block for the amateur linguist.

It is really too bad that there are not works, just such as this one, in all modern languages, so that when an unaccustomed word is encountered in reading medical literature it might be readily found and explained.

W. H. DONNELLY.

COMPEND OF DISEASES OF THE SKIN.

COMPEND OF DISEASES OF THE SKIN. By Jay Frank Schamberg, A. B., M. D. Sixth Edition. Philadelphia, P. Blakiston's Son & Co., 1921. 314 pages. 119 illustrations. 12mo. Cloth, \$2.00.

In this compend we find a work that is more inclusive than we would think possible for so small a book. The author begins with a brief discussion of anatomy and general symptomatology, both objective and subjective, which is sufficient to revive the dormant knowledge of this preliminary work.

This is followed by Duhring's classification of skin diseases after which these various diseases are described. Here the author has left out none of the essentials, including not only symptoms, diagnosis and treatment, but also etiology, pathology and prognosis.

The chapter on syphilis has been rewritten and in addition to his good description of the disease he has added his modernized ideas of treatment. He advises more vigorous treatment with arsphenamine and mercury, especially during the first year of primary cases.

While the book is only a brief review of the subject, it is complete enough to put the practitioner on his guard without great loss of time in reading through long descriptions to make his differential diagnosis, and for students it contains all that they can expect to learn in the time they have to devote to the subject.

E. A. G.

BOOKS RECEIVED.

Books received for review are acknowledged promptly in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases review notices will be promptly published shortly after acknowledgment of receipt has been made in this column.

FRENCH-ENGLISH MEDICAL DICTIONARY. By Alfred Gordon, A. M., M. D. Philadelphia, P. Blakiston's Son & Co., 1921. 161 pages. 8vo. Cloth, \$3.50.

TYPES OF MENTAL DEFECTIVES. By Martin W. Barr, M. D. and E. F. Maloney, A. B. Philadelphia, P. Blakiston's Son & Co., 1920. 179 pages. Illustrated. 8vo. Cloth, \$3.00.

COMPEND OF DISEASES OF THE SKIN. By Jay Frank Schamberg, A. B., M. D. Sixth Edition, revised and enlarged. Philadelphia, P. Blakiston's Son & Co., 1921. 314 pages. 119 illustrations. 12mo. Cloth, \$2.00.

PRIESTLEY IN AMERICA 1794-1804. By Edgar F. Smith. Philadelphia, P. Blakiston's Son & Co., 1920. 173 pages. 12mo. Cloth, \$1.50.

PATIENTS' HANDBOOK ON THE TREATMENT OF DIABETES MELLITUS. By Thomas W. Edgar, M. D. Boston, Richard G. Badger, 1920. 100 pages. 12mo. Cloth, \$2.00.

SEX AND LIFE. What the Experienced Should Teach and What the Inexperienced Should Learn. By W. F. Robie, M. D., M. R. C. Second Edition. Boston, Richard G. Badger, 1920. 424 pages. 8vo. Cloth, \$6.00.

DISEASES OF THE EAR. By Philip D. Kerrison, M. D. Second Edition, revised and enlarged. Philadelphia and London. J. B. Lippincott Co., 1921. 596 pages. 332 illustrations. 8vo. Cloth, \$6.50.

A TEXT-BOOK OF PATHOLOGY. By William G. MacCallum, M. D. Second Edition, thoroughly revised. Philadelphia and London, W. B. Saunders Co., 1920. 1155 pages with 575 original illustrations. 8vo. Cloth, \$10.00.

THE HEART AND THE AORTA; STUDIES IN CLINICAL RADIOLOGY. By H. Vaquez and E. Bordet. Translated from the Second French Edition by James A. Honeij and John Macy. New Haven, Yale University Press, 1920. 256 pages, with 181 illustrations. 8vo. Cloth, \$6.00.

SURGERY; ITS PRINCIPLES AND PRACTICE. By Astley Paston Cooper Ashhurst, A. B., M. D., F. A. C. S. Second Edition, thoroughly revised. Philadelphia and New York, Lea & Febiger, 1920. 1202 pages, with 14 colored plates and 1129 illustrations. 8vo. Cloth, \$10.00.

A LABORATORY SYLLABUS OF CLINICAL PATHOLOGY. By Charles E. Simon, B. A., M. D. Octavo of 86 pages, interleaved. Philadelphia and New York, Lea & Febiger, 1919. Price, \$2.00.

PRINCIPLES OF BIOCHEMISTRY FOR STUDENTS OF MEDICINE, AGRICULTURE AND RELATED SCIENCES. By T. Brailsford Robertson, Ph. D., D. Sc. Philadelphia and New York, Lea & Febiger, 1920. 633 pages, illustrated. 8vo. Cloth, \$8.00.

PRINCIPLES OF HUMAN PHYSIOLOGY. By Ernest H. Starling, M. D., F. R. C. P. Third Edition. Philadelphia, Lea & Febiger, 1920. 1315 pages, 579 illustrations. 8vo. Cloth, \$8.00.

SYPHILIS. By Lloyd Thompson, Ph. D., M. D. Second Edition, thoroughly revised. Philadelphia and New York, Lea & Febiger, 1920. 486 pages, 81 illustrations, 7 plates. 8vo. Cloth, \$7.00.

NUCLEIC ACIDS; THEIR CHEMICAL PROPERTIES AND PHYSIOLOGICAL CONDUCT. By Walter Jones, Ph. D. Second Edition. London and New York, Longmans, Green & Co., 1920. 150 pages. 8vo. \$3.25 (Monographs on Biochemistry).

A MANUAL OF PRACTICAL ANATOMY. A Guide to the Dissection of the Human Body. By Thomas Walmsley, Professor of Anatomy in the Queen's University of Belfast. In three parts. Part I, The Upper and Lower Limbs. London and New York, Longmans, Green & Co., 1920. 176 pages, illustrated. 8vo. Cloth, \$3.00.

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COMMUNITY INTERESTS FROM THE VIEWPOINT OF THE MEDICAL LIBRARY.¹

Lieut. Col. Fielding H. Garrison, M. C., U. S. Army.

Library, Surgeon General's Office, Washington, D. C.

THAT man knows little of himself, still less of his neighbors is one of the oldest, most commonplace observations of philosophers. The most genial of all interpreters of modern science gives an amusing illustration. Passing along the street, when a very young man, he caught a glimpse of a profile that was highly displeasing and repulsive to him. "I was not a little taken aback," he says, "when, a moment later, I found that it was my own face reflected in a mirror." Later in life, he got into an omnibus, just as another man appeared at the end. "What shabby pedagogue is that who has just entered, I thought. It was myself. Opposite me hung a large mirror." He had got to know the externalities of his class better than his own physiognomy.

Not long ago, I received a photograph from a very eminent European savant, a volunteer medical officer, much aged and worn by arduous service in the war, who lamented the *quantum mutatus ab illo*. I wrote to him that efficient and characterful men grow handsomer as they grow older. His reply was brass tacks and fool proof. His mirror told him of no improvement in good looks, nor of any appreciable "growth in spiritual stature."

My subject has two aspects. Its theoretical side, like the reflection in a mirror, is full of illusions, pitfalls and explosive material. In actuality, it is plain, practical and brass tacks.

There are many people today, to whom such phrases as "efficiency," "organization," "social welfare," "community service," "health insurance" and the like are objects of loathing and derision. People are tired to death of cant phrases, of attempting to settle moral and social questions by verbiage, of the delusion that the insoluble problems of the universe can be settled by catch-words. A god mathematician will tell you that the truth about any big problem is usually found in the sixth or seventh decimal place, and is only an approxi-

¹ Read to the Medical Society of the County of Kings, Brooklyn, N. Y., February 15, 1921. Published by permission of the Surgeon General, U. S. Army.

mation at that. The younger set of literary people are a unit, a solid phalanx, against the opposite tendency and have subjected it to keenest ridicule. They prefer to work out their own destinies for themselves, as the society of the future will do, in any case. There is still plenty of human nature in the world. Years ago, Thoreau observed:

"If I knew for a certainty that a man was coming to my house with the conscious design of doing me good I should run for my life as from that dry and parching wind of the African deserts called the simoon, which fills the mouth and nose and ears and eyes with dust until you are suffocated, for fear that I should get some of his good done to me—some of his virus mingled with my blood."

As a litmus test, I applied to four well known medical librarians for a statement as to the community service of their respective institutions. I am pleased to report that their replies all ran to type, the type of the "beagle true-bred" of the newer generation. They denied categorically that their libraries did any community service whatever, and, in truth, the phrase "community service" does not connote any thing special in relation to a medical library.

The public service of a medical library may be summed up in a single sentence. It supplies medical literature to the doctors and furnishes such medical information to the public as it can. Its merits are claustral and unobtrusive.

Of the public service of the Boston Medical Library it is hardly necessary to speak. In community service that is more than state-wide, in adaptation to milieu, in efficiency of a high and peculiar kind, this splendid institution is an object lesson to all. Although a corporation, financed by members' fees, it is open to everybody. It supplies literature to the medical profession of New England and Canada, on application, and is on the way to the establishment of branch libraries in Massachusetts. It publishes and distributes a monthly list of its new books. It is the headquarters of all the medical societies of the state, keeps a register of members' names and addresses, affords a place for local medical meetings, and to national medical societies, without charge. It is open to medical students three evenings a week, and permits the purchase of old medical duplicates by students who cannot afford the prohibitive prices of today. The library of the College of Physicians of Philadelphia also prints and distributes lists of new books to its members. The library of the Medical and Chirurgical Faculty of Maryland conducts a book exchange for the Medical Library Association and is the headquarters of the national infant welfare activities. In the New York Academy of Medicine, the operations to be performed in the various hospitals of the city are posted for public information, but this, although a public service which might well be performed by any central medical library of a large city, is actually conducted by the Society for the Advancement of Clinical Medicine. The Brooklyn library supplies Long Island and supplied the Long Island camps during the war. The smaller medical libraries of the country are in much closer touch with the medical profession of their communities than most, and some of these distribute literature in the outlying counties of their states.

The Library of the Surgeon General's Office, like all government libraries, is open to the public as well as to professional people. It is the national medical library. Under the aegis of the Surgeon General of the Army, it furnishes medical literature and bibliographical information to the whole medical profession of the country, and, under certain conditions, any physician can obtain medical books not on its

rare or reference lists, through his local medical, public or university library. The only books not loaned are those which could not be replaced, except with great difficulty, if lost, destroyed or defaced by fire, water, accidents in transportation, theft, disappearance through the mails, personal carelessness and the like. Aside from its vast lending system, the principal service of the Surgeon General's Library is in the cataloguing and indexing of medical literature on a grand scale, which is undertaken by no other institution. Through its foreign and other agents, all available medical literature of positive value is purchased, catalogued and indexed, and the resulting bibliographies have been published to date in the three successive series of the Index Catalogue. Monthly (now quarterly) bibliographies are issued in the form of the Index Medicus. While a bibliographical index, running from year to year, is not the same thing as a circumscribed and reasoned bibliography of a single subject, the Index Catalogue is, in effect, a complete general bibliography of medicine in all its branches, from the days of the earliest texts of medicine to the present time. The unprinted manuscript bibliographies of authors and subjects are now kept in new file cabinets, with guide cards, in strictly alphabetical order, so that any visiting physician may have easy and ready access to them at need. Through the cooperation of the Librarian of Congress, the author titles of all new books and pamphlets are now printed on special cards and filed for the use of the visiting public in a series of cabinets in the Library hall. In these cabinets, as in the Library of Congress or the New York Public Library, the author-title of any book or pamphlet in the Library may be found. The correspondence service of the Library is now immense, and, day by day, scores of physicians' queries are answered; selected bibliographies are furnished and research work is done to the capacity of the small force employed, when not inconsistent with government rules or impinging upon the routine of government business. The medical officers of the Army who have been chosen as librarians have all been carefully selected as to administrative ability and knowledge of medical literature. Many brilliant medical meetings have been held in the central hall of the Library by medical societies and congresses in the past, and it is still available for this purpose when national medical societies meet in Washington. Cubicles in the Library Hall and a special private room are available for research workers. Underneath the Library Hall is another public reading room of equal size, in which the current unbound periodicals and the public documents are now kept.

In its earlier days, through the wide interests of Billings, the Surgeon General's Library was of material aid in upbuilding and developing the smaller medical libraries of the country. This is now the function of the Medical Library Association. At the present time, the United States has more medical libraries than any other country in the world, yet, for a country of such extent and population, there are by no means enough of them to supply the needs of our many large cities, and, given the constant *trek* of the rural population to the cities, and the immense influx of foreign immigrants, past or prospective, the need and opportunity for developments seem unlimited. When a local medical society has attached to it a good medical library, it becomes the power-house of the medical profession of that community, as in Boston, Philadelphia or Baltimore. No worthwhile physician who respects his position is without a good private library, however

small, for medical books are not so much the tools of his trade, as the ultimate sources of his aspiration and power. In the olden time, when public libraries were few and far between, physicians' libraries were often unique and magnificent collections, from the Middle Ages to the days of William Hunter and Lancisi. In this regard, the private collections bequeathed by George Jackson Fisher, Joseph Jones, Willard Parker, and S. S. Purple to the Brooklyn Library, by S. D. Gross and Samuel Lewis to the Philadelphia Library, by Boston physicians to the Boston Library, by Dr. Howard Kelly to the Johns Hopkins Library, speak for themselves. But with the organization and mobilization of modern scientific medicine, new devices, new elements came into play, which made it impossible for the physician to find funds or shelf space for anything more than the standard texts or (at most) the historical curiosities of his specialty. The extraordinary proliferation of periodical literature, of expensive serials, of journals devoted to laboratory medicine, of massive systems and monographs, made it necessary and, (as the mathematicians say) sufficient that such items should be stored in some central place for the common good of all. What physician, with due regard for his wife and family, would venture to keep on hand bound running files of such archives as those of Pflüger for physiology, of Virchow for pathology, of Langenbeck for surgery, or the bulky volumes of such huge weeklies as those of Berlin, Leipzig, Munich, Vienna, London, Paris, New York, or Chicago? Yet the best of modern medicine is almost entirely in the periodicals. "A text book" as Ballard, with a touch of exaggeration, says, "is out of date soon after its publication." Collections of medical books attached to a hospital, an insane asylum, a laboratory or a clinic are sure to be of special character and limited in number. Where then, except in the general medical library of a city, are all the books to be kept? As an arsenal of the best resources of the modern physician, the services of the medical library to the profession, and therefore to the community, are incalculable.

To Schopenhauer, a powerful thinker, who viewed life through dun-colored spectacles, a library seemed like a cross-section of geological strata:

"The strata of the earth preserve in rows the creatures which lived in former ages; and the array of books in a library stores up, in like manner, the errors of the past and the way in which they have been exposed. Like those creatures, they too were full of life in their time, and made a great deal of noise; but now they are stiff and fossilized, and an object of curiosity to the literary palaeontologist alone."

This is undoubtedly a truthful picture, as regards the innumerable eccentric theories and whimsical fancies of physicians which have hampered the progress of medicine in the past, and even bob up in the present now and then. Let a bizarre theory become a fixture in an unfurnished mind, unused to other theories, and it will also fill the whole mental horizon of the individual, even for the rest of his life. Theorists of this kind have been not uncommon in the medical profession. The true interest of Hippocrates is not the humoral pathology, the doctrine of the *pneuma*, and such like, but the openness of mind, the honesty of purpose, the discriminating intelligence, the ethical ideal displayed in his writings, along with his basic descriptions of diseases, his aseptic surgery, his exposition of fractures and dislocations, all which are as much alive as when he was alive. The clinical pictures of Sydenham and Heberden, of Laennec and Trousseau, are intensely alive, and will be cited and referred to, in the future

as in the past. It is precisely through the showing up of the errors of the past that the library becomes valuable, and that from it, as Billings says, "our teachers, our legislators and our people must draw the stores and weapons with which to contend with the same ignorance, indolence, folly and vice which have led to the downfall of the cities and kingdoms of long ago."

Schopenhauer's account of catalogues and bibliographies is also water to our mill:

"Herodotus relates that Xerxes wept at the sight of his army, which stretched further than the eye could reach, in the thought that of all these, after a hundred years, not one would be alive. And in looking over a huge catalogue of new books, one might weep at thinking that, when ten years have passed, not one of them will be heard of again."

Considering the same philosopher's statement that "nine-tenths of the whole of our present literature has no other aim than to get a few shillings out of the pockets of the public," one might rather rejoice. "The Nineteenth Century," said Bernard Shaw, "was the Age of Faith in Fine Art. The results are before us." It is literally true that a good bibliography of some phase of science, such as that of Haeser on epidemic diseases, is more useful and valuable than nearly all the dead books contained in it. Osler said that a first class bibliography is one of the best floats down to posterity. Witness Haller, Hain's catalogue of incunabula, Billings' Index Catalogue or Osler's own *Bibliotheca Prima*. Dr. Welch observed that "Bibliographers live." If we are wise, they can at least show us what to avoid and what not to do.

Since the European War, the ancient antagonism between individualism and collectivism has come to a focus again, stirring the minds and feelings of the greater part of civilized humanity. Present Europe is its *Taumelplatz*. Old Tory Squires lament, with Browning's king,

"The mad and democratic whirl

Whereto I see all Europe haste full tide."

Socialists and internationalists opine that the millennium is at hand. Individualism centers about the brilliant Nietzsche; socialism about Marx; but there are many hybrids and by-products. The pivot of Nietzsche's assault on the ethics of the past is the following from the *Antichrist*:

"What is good?—Whatever augments the feeling of power. What is evil?—Whatever springs from weakness.

"The weak and the botched shall perish: first principle of our charity; and one should help them to it.

"What is more harmful than any vice? Practical sympathy for the botched and weak—Christianity."

What concerns us here is not that Nietzsche's hatred of Christianity was the proverbial backsliding of the clergyman's son, who could not be the physical superman of his pipe-dreams; nor that he hated the botched and the weak because he was a botched neurotic himself, nor that his very real hatred of his own "inferiority-complex", his *Spiegelfechtere*, is easily explicable along Freudian lines; It is obvious enough that Nietzsche-land, "on the other side of good and evil," is a very attractive mental playground for people of the artistic temperament. What concerns the physician, however, is that it is precisely his duty and his calling to patch up those who are botched and weak or who will be botched and weak before life has got through with them. They are his patients and his clients;

he cannot afford to despise them. As Diderot, in his "*Paradoxe Sur le Comédien*," maintained that the actor must never be influenced by the emotions with which he deals, so the physician must school and conquer his emotions, must avoid what Stuart Mill calls "slovenly habits of thought and subjection of the mind to fears, wishes and affectations." His rôle in human society is impartial and impersonal; in private life, he is the friend and counsellor of his patients. As sanitarian, he is the doctor of a whole community. This might be called the community-value of the physician. If he affects to despise the weak and unfortunate, or if he spoils his patients' chances by maudlin sympathy, he is a bad actor in the human comedy. The refined and courteous Weir Mitchell grumbled mightily on gray mornings over the neurotic women with whom he had to deal; but he usually got them well. Neurologists are commonly sad-faced, serious-minded people. One has occasionally encountered physicians who carry on in King Cambyzes' vein, playing "such fantastic tricks before high heaven as make the angels weep." I call these the *Heilärzte welche heilen nicht*, those who do not make people well but actually sicken them with their bombastic absurdities. They are bad actors.

The subtle-minded Leopardi asserts that it was Christianity which first introduced the concept of "the world," as something hostile to human welfare, as the corruptor of all goodness and all virtue, as "a league of rogues against the honest people, of the vile against the generous," a concept, he says, not to be found in the works of any pagan philosopher, nor ever entertained by the Greeks and the Romans. It is well reflected in Shakespeare's line: "The world an ancient murderer is." While the Greek and Roman writers have given only brief accounts of the many diseases and epidemics of antiquity, it was not any religious system that botched modern humanity, but syphilis, tuberculosis, malarial, industrial and other toxic poisons, the overcrowding of people in large cities and slums, occupational diseases and accidents, the hazards of war, vice, crime, prostitution and other phases of "the strange disease of modern life." Nietzsche's view of the botched and weak is entertained by many modern writers, notably Lecky in his "Map of Life," and it is commonly the viewpoint of those who, like all amateur theorists, view morality in its geographical and historical relations, when, as a matter of fact, it daily and hourly concerns the weal and woe of millions of living people. Moral questions concern not so much the welfare of men, who, from a military standpoint, are supposed to be able to take care of themselves at all times and places; they concern mainly the welfare of women and children, of families, and of whole communities of people. Moral questions are therefore best discussed, not by eccentric philosophers and literary men, but by those who are actually concerned with *morale*, individual or social. Communities have their own way of rating physicians who are backsliders on this point; and what should we think of a sanitarian who is not Benthamite to the core, who does not consciously labor for "the greatest good of the greatest number?" Here the physician at his best, has taken his place alongside the poets, artists and other cultural benefactors of humanity, and it is from the library, from the records of the great of his profession in the past, that he derives the sources of his ethical inspiration and his practical power.

The late Professor Minot, one of our immortals, in addressing the Faculty of the University of Berlin in 1912,¹ gave, better than

any other, the true reasons for the development of scientific institutions of the United States. First of all, the original colonists of this country were, in the nature of things, strong individualists, and to be thrown upon their own resources in a frontier environment not only accentuated their individualism, but engendered a hardy spirit of resolution and independence, of detachment of mind and independence of character, which was destined to be the leading note in the Declaration of Independence itself. But these strong self-helping people were early exposed to hostile forces which threatened their existence. There came about therefore the habit of voluntary co-operation, which is the ground-bass of our Constitution and which has been characteristic of American society ever since. Thus, a marked trait of the typical American is that no opposition between individualism and collectivism exists in his mind. Antinomies as they are, he simply maintains an eclectic, balanced attitude toward both. Even in Germany, in the days before the War, the typical *Amerikaner* was described as *unbefangen*, not committed to any special theory, paradox or *parti pris*. Another powerful coefficient, Minot thought, has been that most of our emigrants never had the opportunity to develop or demonstrate their full capacities in Europe, while in this country, the rapid rise and evolution of the successful individual from one occupational status to another engendered the feeling that nothing is impossible to the self-helping and the enterprising; whence the generally hopeful spirit of our nation in regard to any project about to be undertaken. Minot's account of the development of our scientific institutions is: 1. Modest beginnings, however ridiculed. 2. Fair and hopeful prospects. 3. Successful fruition.

The history of all our medical libraries has been along these simple lines. The Surgeon General's Library was once a mere office shelf of books in General Lovell's room and those of Boston, New York, Philadelphia, Baltimore, Chicago and Brooklyn had equally modest beginnings. Much was due to generous donors and the best of these libraries are associated with the names of eminent individuals, the Washington Library with Billings, Boston with Holmes, Philadelphia with Weir Mitchell, Baltimore with Osler, New York with Jacobi. How best to develop the community medical library? You may recall Billings' anecdote about the coral insects. If you start something, if you make a beginning in anything, you may live to finish it. The best program for a community medical library is that of a medical book club, maintained by all the physicians in the community who are interested in keeping up with advances in a scientific medicine. Each physician will then have a positive subscriber's interest in building up the local collection, any item of which may be of use or value to him at some future time. As Goethe advised art collectors to neglect expensive old masters and buy in the best paintings of artists living in their own time, which would later become classical, so the importance of concentrating upon the modern literature, particularly the periodical literature, should be stressed at the start. Each physician might become personally responsible for the maintenance, by subscription or donation, of some particular periodical file in which he is interested. The whole collection will then accrue to the common good of all. The librarian should acquire all the current book lists and antiquarian catalogues, and make a careful study of these, so

¹C. S. Minot: Antrittsvorlesung, Science, N. Y., 1912, N. S., XXXVI, 771-776.

that he may buy in at advantageous figures, the best of the monographic and pamphlet literature, keeping his weather eye open for those biographical, historical and literary items in which his readers may like to delve and to browse in leisure moments. Prices of rare medical books and of the older classical texts are now prohibitive and these things usually find their way into a good working collection as donations. A great philosopher said that if you give people apples and they do not love you, they will eat your apples and leave you out in the cold. Gratitude is proverbially a burden, and we often spoil individuals by doing too many things for them. To the collector, then, there is distinct advantage in serving the larger altruistic motive. If you have a fine collection of rare and valuable items, do not bequeath it to some individual, who may sell the books or disperse them, but leave it to some progressive working medical library, where it will be appreciated, as Benjamin Altman's wonderful Rembrandts in the Metropolitan are appreciated, by everybody. For the medical librarian himself, there is much in Billings' "open secret that one makes friends quite as much by asking and receiving as by giving, provided it be clear that the asking is not for personal benefit." Many fine collections have been acquired for public libraries in this way. The raids which Billings made upon the medical libraries of his friends in the old days, the rare items and duplicates he acquired, make a chapter in itself. Mr. Ballard, of the Boston Medical Library, posts up and down the North Atlantic seaboard at intervals, and seldom returns without bagging some worthwhile items. His object is to add everything of value he can to the Boston collection. Our medical libraries need more collectors of this alert, enterprising type. It is a delightful trait of physicians who make private collections of books that they are usually of the type called "old-fashioned," have an innate aversion to publicity. Of the several collections donated by Boston physicians to their medical library, I do not know the name of a single donor. When Thomas Carlyle gave a celebrated historical collection to Harvard Library, he expressed his Scottish horror of publicity to Emerson as follows:

"One thing only I regret, that you *have* spoken of the affair! For God's sake don't; and those kindly people to whom you have,—swear them to silence for love of me! The poor little *Daisykin* will get into the Newspapers, and become the nastiest of Cabbages:—silence, silence, I beg of you to the utmost stretch of your power."

I like the sentence of the late James Huneker about Raphael Joseffy: "Unostentatiously he lived; without ostentation he passed into shadow land."

Let us have publicity for the institution or organization; privacy for the individual. Like gravity, radium, magnetism and other strong forces, the medical library does its best work without ostentation. Dr. Bostwick defines the librarian as "the nurse of the reading public."¹ If such be his social function, the less said about him the better. You recall the quip in *Life*: "Behold the reference librarian, and the joys that appertain to her!" Rather is the librarian's career like that of the old monk in Schubert's song who sees the crusaders riding by in their shining armor, yet reflects that his life, too, has been, in a manner, a crusade into far distant lands. This explains why librarians are sometimes cantankerous. Books are "highly explosive

¹ A. E. Bostwick: *Library Essays*, New York, 1920, 27.

compounds," and given the monastic stillness, the sepulchral solitude, human explosions seem louder and of greater momentum than in the outside world. While it is one of the medical librarian's principal functions to meet the doctor more than half-way, to sometimes wet-nurse him and spoon-feed him, yet, on the military principle that a grown-up man should be self-starting and self-steering, many physicians become studious of catalogues, cross-references, indexes and bibliographies, and it is often these silently appreciative ones who come to the medical library bringing gifts in their hands. Personally I believe that the best physicians I have known see in the medical library a kind of symbol of the quiet, unostentatious work of our profession everywhere, even as the best texts and records of scientific medicine are the outward and visible sign

"Of labor, that in lasting fruit outgrows
Far noisier schemes, accomplished in repose."

GALL BLADDER DISEASE: THE RELATION OF THE PATHOLOGY TO IMMEDIATE OPERATIVE RESULT. * *

Russell S. Fowler, M. D., F. A. C. S.

Brooklyn, New York.

In looking over my records of operations for gall bladder disease I find 608 cases in which the pathology of the lesions encountered is sufficiently and definitely described.

According to lesion these cases are divided as follows:

	Total	Recovered	Died
Acute Cholecystitis	230	206	24*
Chronic Cholecystitis	331	330	1
Acute Cholecystitis and Acute Pancreatitis	6	4	2
Chronic Cholecystitis and Chronic Pancreatitis	30	30	0
Carcinoma of the Gall Bladder or Bile Ducts	26	15	11
Carcinoma of the Common Duct and Pancreas	8	5	3
Curiosities of the Gall Bladder—Absence of Gall Bladder	1	1	0
Intestinal Obstruction from Gall Stone ..	3	2	1
Syphilis of Gall Bladder	1	1	0
Choledochus Cyst	1	0	1
Ecchinococcus Disease of Gall Ducts	1	1	0
	608	565	43

THE CASES IN WHICH A CHOLECYSTOSTOMY WAS DONE AND THOSE IN WHICH A CHOLECYSTECTOMY WAS DONE.

The operation of cholecystostomy was performed in seventeen cases of chronic cholecystitis with no deaths; in 121 cases of acute cholecystitis with 12 deaths. In this group were a number of perfora-

**Read before the Medical Society of the County of Kings, Jan. 18, 1921.

* Including 12 cases of gangrene and perforation.

tions and diffuse peritonitis, a pathological condition which usually has a mortality of 33%. Cholecystostomy with choledochotomy for chronic cholecystitis was performed five times with no deaths. Cholecystostomy with choledochotomy for acute cholecystitis was performed seven times with one death. These choledochotomies do not include choledochotomies in which the duct was opened for exploration only, but those in which definite pathology was established. In practically all cases of cholecystostomy and cholecystectomy which I have performed in recent years the common duct has either been opened or explored by a method which will be described later.

To summarize, of the cholecystostomies which have been done for acute or chronic cholecystitis, we find 150 cases with 13 deaths, including gangrene of the gall bladder and perforation.

Turning our attention to those cases in which a cholecystectomy was done, we find that for chronic cholecystitis there were 284 operations with one death, while for acute cholecystitis there were 91 operations with 6 deaths, including those with gangrene and perforation. In cholecystectomy with choledochotomy for chronic cholecystitis there were 25 cases with no deaths. In cholecystectomy with choledochotomy for acute cholecystitis there were 11 cases with 4 deaths.

COMPARISON OF CHOLECYSTOSTOMY AND CHOLECYSTECTOMY AS TO MORTALITY IRRESPECTIVE OF THE LESION FOR WHICH THE OPERATION WAS DONE.

Cholecystectomy was performed 411 times with 11 deaths. This series included 36 common duct drainage cases and a large number of cases in which the duct was opened and sutured.

Cholecystostomy was performed 150 times with 13 deaths. In this series are included 12 cases of drainage of the common duct and a few cases in which the duct was opened and explored, and the duct resutured.

In regard to the safety of cholecystostomy as compared with cholecystectomy, it is manifestly unfair to draw the conclusion from the above that cholecystectomy is the safer operation, for the reason that the pathological conditions present at the time of operation are usually much more severe, in my experience, in those cases in which a cholecystostomy is done. In other words, through the desperate general condition of the patient, through the extent of the peritonitis, through the intense inflammatory reaction in the neighborhood of the gall bladder, it has many times been advisable to do the slightest operation which could be done, namely, a drainage, and this has been done many times without disturbing the surroundings at all, but simply aspirating the gall bladder as it presented and then draining it without, in some instances, even attempting to remove the stones, so desperate has been the condition of the patient. On the other hand cholecystectomy has been done in those cases which presented a fair chance for not only immediate relief of the conditions present, but with the knowledge that complete removal allowed also a better final result. Yet even here the 6 deaths which occurred in acute cases as traced out with one exception, were due to gangrene and perforation with peritonitis. The exception was an acute gall bladder and may be put down as an operative death. This case was one of empyema of the gall bladder in a stout woman operated at the Methodist Episcopal Hospital. The operation was rather readily performed, but there was a

more than usually intense inflammation about the cystic duct in which a stone was impacted. The duct was isolated and the usual exploration made without difficulty. The cystic artery was isolated and tied without immediate hemorrhage. The gall bladder was removed in the usual manner. This woman had a myocarditis as many cases of gall bladder disease have and which, as I have shown in a previous paper, is due in many instances to the gall bladder disease. The patient took a good anesthetic, did nicely for forty-eight hours at the end of which time there was a small sharp hemorrhage from the wound depths caused, I believe, by the loosening of the ligature of the cystic artery. This hemorrhage would not have been of itself sufficient to have caused death; in amount it was certainly not more than six or eight ounces, probably less than eight ounces. However, with this patient's weakened myocardium there ensued immediately after the hemorrhage a dilatation of the heart with death.

COMPARISON OF THE OPERATIVE MORTALITY IN ACUTE CHOLECYSTITIS AS COMPARED WITH CHRONIC CHOLECYSTITIS, IRRESPECTIVE AS TO WHETHER CHOLECYSTOSTOMY OR CHOLECYSTECTOMY IS PERFORMED

Of these cases of chronic cholecystitis there were 331 cases with one death; of the acute cases there were 230 cases with 24 deaths of which 12 were cases of gangrene and perforation. Again we cannot compare statistics of this kind. The question is one of the underlying pathology for which the operation is done. There are a certain number of cases which have reached the stage which cannot be saved by any method of operating. This is evidenced also by the fact that of the 48 cases (this does not include those cases in which the duct was opened and explored and subsequently sutured) in which drainage of the common duct was instituted in addition to cholecystostomy and cholecystectomy there were five deaths.

In addition to the cases in which a cholecystectomy or a cholecystostomy was done there were 13 cases in which there were 17 secondary operations upon the common duct following a cholecystectomy or cholecystostomy, the secondary operation being necessary either through stricture (two cases), recurrent stone (9 cases) or persistent leakage (2 cases). Of these 17 operations three resulted fatally; two of these deaths were in long persistent sinus cases, one was in a case in which the original operation had been done for empyema of the gall bladder and in which at the second operation the empyema had again formed. The patient was an elderly gentleman and death occurred on the thirteenth day from general asthenia. Of the operations for stone, all stones removed were of the common duct type. None were stones which had escaped from the gall bladder. Those cases in which stone was found also showed marked evidence of choledochitis. I do not think any of them were cases of overlooked stone, but of recurrent stone. The ducts in all the stone cases were wide, easily explorable at each operation, with dilatation of ampulla of Vater, with stiff walls, that showed the infection was of long standing. The condition was favorable for the reformation of calculi. Whereas in many of the cases in which choledochotomy was performed in association with cholecystostomy and cholecystectomy as a primary operation there were found stones in the hepatic duct, in this particular series of secondary operations such was not the case at the primary operation. At the primary operation in these cases stones were present in the common

duct only, so I do not think there were any liver stones which subsequently came down to the ducts, but rather they were stones which formed in the duct itself. There were of these recurrent stone cases two which had two secondary operations performed. These cases form a very considerable argument for the early removal of the gall bladder before the disease has progressed beyond the gall bladder itself. In old chronic cases with great thickening and dilatation of the common duct it is wise to open the duct before palpating it, otherwise a floating stone such as forms in the second portion of the duct may float up into one of the intra-hepatic ducts and be overlooked. There may be cases in which stones have been overlooked in the common duct, but since in these old chronic cases conditions are ideal for stone formation and since stones have been found in the common duct at secondary operations after the most careful exploration, both as regards digital exploration and duct exploration and washing out of the ducts, it is fair to suppose that a certain number of these stones at least, are recurrent and not overlooked stones. Where one has been in the common duct three times in the same patient as I have and has found one stone at the first operation, three stones at the second and two at the third, all stones of a large size and at which a most careful exploration was done at each operation, it is not reasonable to suppose that such stones were overlooked stones. Nor were they stones which came down from the gall bladder having been overlooked there; they all were of the bilirubin type with but little cholestrin. They were of the typical irregular shape, friable in construction and not polished or faceted. I have yet to add to my collection that rare variety of common duct stone, a small yellow faceted stone such as forms at times in the dilated intra-hepatic ducts, being of a similar type to the small yellow faceted stone in the gall bladder. Common duct stones are irregularly shaped, black, friable, contain little cholestrin, contain much bilirubin and calcium, are not polished or faceted. Nor do they show the nucleus of a typical cholestrin stone. Such a stone found in the common duct after cholecystectomy may be of intrahepatic origin, or may be formed in the duct itself. In many of these choledochitis cases there is a variable amount of sand present in the duct. This, of course, is washed away at the operation. It is also quite logical to suppose that the same inflammation which has affected the ducts outside the liver has also affected those within the liver, and that small particles of this sand gradually coalescing in time form a recurrent stone. There is but one method of prevention and that is the removal of the gall bladder before the inflammation has proceeded beyond it.

Just as in appendicitis, so in gall bladder disease, there is a stage at which the disease is readily curable with only the low mortality of less than one per cent which attaches to abdominal operations, this mortality being due to unforeseen complications.

ACUTE PANCREATITIS ASSOCIATED WITH GALL BLADDER DISEASE.

I have only six cases of acute pancreatitis with acute gall bladder disease in this series. In one, cholecystostomy and drainage of the head of the pancreas was done; in two, cholecystectomy and drainage of the head of the pancreas; in three, cholecystectomy, drainage of the common duct and drainage of the head of the pancreas. Of the series two died, one on the second day and one on the fourth day, one being a cholecystectomy and one a cholecystostomy.

I have, of course, operated upon many more cases of acute pancreatitis but only in these six have I been able to demonstrate an acute inflammation of the gall bladder coincident with acute pancreatitis. In the treatment of acute pancreatitis associated with gall bladder disease, as the pancreatic complication is much more dangerous than the cholecystitis, the operative attack should first be made upon the pancreas. As a rule in severe cases simple incision and tamponade of the pancreas should be attempted. In moderately severe cases a cholecystostomy is indicated in addition to the incision and tamponade of the pancreas, removal of the gall bladder and drainage of the common bile duct being left for a possible secondary operation. If the condition of the patient is good, however, the operative procedure for the cure of the inflammation of the gall bladder and bile duct as well as the cure of the acute pancreatitis may be undertaken. The ideal method is first to expose the pancreas, liberally incise the area affected, tamponade and then perform a cholecystectomy and drainage of the common bile duct.

CHRONIC PANCREATITIS ASSOCIATED WITH GALL BLADDER DISEASE.

In a large percentage of cases of chronic gall bladder disease, with or without common duct involvement, there exists a certain degree of pancreatitis. The number of cases which will be definitely called chronic pancreatitis will depend upon the operator. It is my own custom to class as chronic pancreatitis those cases only in which there is a very definite hardening of the pancreas with increase in the size of the lobules. In the present series there were 30 cases. The occurrence of chronic pancreatitis does not seem to increase the risk of the operation as none of the cases died.

The fact that so many cases develop pathological changes in the head of the pancreas as a result of the gall bladder disease proves an additional reason for early cholecystectomy before the disease has proceeded beyond the gall bladder. I believe there is a definite relationship between chronic pancreatitis and carcinoma of the head of the pancreas. There are several cases which I have operated upon, doing a cholecyst-duodenostomy supposing the hardness of the head of the pancreas was carcinoma, but the fact that these people have lived two or three years led me to revise my diagnosis and consider these cases chronic pancreatitis.

I believe that in cases of advanced pancreatitis with marked sclerotic changes in the head of the pancreas it is better surgery to do a cholecyst-duodenostomy or cholecyst-gastrostomy than a cholecystectomy.

PRIMARY CARCINOMA OF THE GALL BLADDER AND BILE DUCTS.

Primary carcinoma of the gall bladder and bile ducts is not so rare as was formerly supposed.

In the review of 608 cases of gall bladder disease primary carcinoma of the gall bladder or bile ducts was found at operation 26 times or 4+%. Fifteen cases survived the operation, eleven died. In cases not operated upon cancer has been diagnosed in a larger number of cases but has not been proved.

Among these cases are not included cases of carcinoma of the pancreas in which the common duct also was involved. In 13 cases the operation consisted of exploration only; in six cases cholecystostomy was done and stones removed, as the gall bladder as well as the surrounding liver were so involved as not to allow of other operation.

These were cases in which there was a breaking down of the gall bladder wall. In one case a cholecyst-duodenostomy was done. In 6 cases the disease was so limited to the gall bladder as to allow of a cholecystectomy. Of these latter cases four survived the operation, one died of pneumonia on the fourth day and one of an intercurrent nephritis within a week.

I believe that the real percentage of carcinoma is very much higher than 4%. We have here an additional and very potent reason for urging early cholecystectomy.

CARCINOMA OF THE PANCREAS INVOLVING THE COMMON DUCT.

Here we consider only those cases which were associated with gall bladder disease. In the series investigated we find 8 cases of carcinoma of the head of the pancreas involving the common duct. Of these cases three died and five recovered. In one case the gall bladder was removed and part of the head of the pancreas; this case died. In two cases, cholecystgastrostomy was done, one of which died. In four cases cholecyst-duodenostomy was performed; one died of shock on the third day and three recovered. In one case cholecystostomy was performed with removal of stones, the condition of the patient not permitting further operative interference; the case recovered.

As to the choice of the palliative operations in this class of case, wherever permissible cholecyst-duodenostomy or cholecyst-gastrostomy should be performed. Such an operation relieves the patient from jaundice for a period, increases the nutrition and makes him much more comfortable until such time as the disease progresses far enough along the common duct to involve the base of the liver. The introduction of bile into the stomach from cholecyst-gastrostomy though in larger amounts than occurs physiologically, does not seem to cause ill effect, so that if the duodenum is fixed by the carcinoma and cholecyst-gastrostomy appears technically easier, it may be done.

Gall bladder disease is essentially a surgical disease and it is as important to operate early in gall bladder disease as it is in appendicitis because adhesions forming in the neighborhood of the pylorus and duodenum are more disabling than those about the caput coli; because gall bladder disease is the more often followed by cancer; because gall bladder disease is a common cause of chronic pancreatitis.

It is all important that the gall bladder be removed before the disease has advanced beyond the gall bladder. Once the common duct is involved the disease assumes the same chronic type that is present in the gall bladder. Duct stones are liable to recur.

Injury to the lining of the duct is a predisposing factor in the formation of stones. For this reason the utmost delicacy of technique must prevail in exploration of the duct. The technique which I employ is to explore the common duct, using the stump of the cystic duct as the point of entrance, and employing a slender silver probe bent at an obtuse angle one half inch from its blunt tip. Such a probe is readily passed through the stump of the cystic duct, along the common duct, through the papilla and into the duodenum without injury to the delicate duct lining. Its free passage alone does not rule out stone, but is supplemented with digital examination from without, the probe serving as a guide. Even the smallest stones are thus easily detected. The duct is made readily palpable in its entirety, the relationship of adjoining glands is easily appreciable, and, moreover, the procedure

can be routine in all cases without fear of injury. With a little care in manipulation, the common hepatic duct, and the right and left hepatic ducts may be explored, the probe being molded to conform to the parts. The large lead probes commonly seen with gall bladder instrument sets should only be used with much enlarged and diseased ducts and then with care.

Should it become necessary to open the common duct to remove a stone the incision should be clean cut and sufficiently large to allow of removal of the stone without the necessity of bruising the edge of the incision. No enlarged duct should be palpated before being probed as a stone in the second portion of the duct may be displaced and caused to float up and into one of the hepatic ducts where it may prove difficult or impossible of removal. If there has been no trauma to the papilla and drainage into the duodenum seems adequate the duct may be sutured without duct drainage.

In suturing the same principle of suturing layers in other regions should be carried out. Fine sutures should bring the edges in apposition and the sutures should not penetrate the delicate duct lining.

Not only in attacking the common duct is the utmost care necessary—far more care, I believe, than is usual in other abdominal operations—but delicacy of manipulation is essential in the cholecystectomy itself. Careless rough operating will cause a certain number of bad end results. Anesthesia must be perfect, exposure adequate and a technique be employed which will minimize trauma.

We may fairly state, then, that a certain number of bad end results are due to operative trauma, avoidable or not. Avoidable trauma is due to imperfect technique, and the surgeon will know whether he has employed a proper anesthetist so that slight if any retraction or packing is necessary, and whether he has used the most exquisite care in handling the tissues. Unavoidable trauma is due to dense adhesions, and they in their turn are due to the duration, extent, and in relative virulency of the disease. This brings us to the real cause of bad end results, the extent and duration of the pathology present. It may be taken as true in ninety-nine out of one hundred cases that the more advanced the lesion the more difficult is the relief of symptoms. A return to normal in the case of the gall bladder is impossible. All we can hope to do is to remove it and remove it in such a manner as at least not to increase the disabling adhesions and their resulting intestinal atony.

Unfortunately many medical men do not seem to grasp the necessity for an early operation which in view of the pathology of the disease and its proved progressive nature, the surgeon feels he may logically request. On the contrary, many cases are sent to the surgeon when the disease has advanced to a stage where relief is possible but not complete cure. In this respect the history of appendicitis of a generation ago and of duodenal ulcer of a decade ago is being repeated. No one now thinks of any method of treatment for appendicitis other than operation, nor of treatment other than surgical for duodenal ulcer, once its chronicity is established. Yet gall bladder disease continues to be treated medically in spite of the fact of its chronic progressive nature and the well proven fact that such an infected focus is responsible for so many near and remote complications.



EDITORIAL



A WORD ON SPECIALISTS.

IT SOMETIMES happens that a word from some one in a position of eminence carries conviction, whereas the same homely truth from common mortals falls upon deaf ears. The daily press makes scare headlines and editorials out of the commonplace pronouncements of the President of the United States. The same words coming from Charles, the barber, or Jim, the traffic cop, wouldn't make a news item. These desultory thoughts, rising as they do from a heart embittered by neglect, are caused by a letter from Sir James Mackenzie, the eminent British physician, to the president of the Brooklyn Cardiological Society. What he has to say is of such moment that his letter is reproduced in full in another place.

The point of view which recognizes that specialties narrow and general practice broadens has served as the text for previous editorials in this Journal. The occasion of Sir James Mackenzie's letter offers the opportunity to reiterate a standpoint which seems to be lost sight of in modern medicine. The object of a medical education is to fit a physician to cure disease. It is just at this point that the common sense highway is abandoned for a more attractive bypath. Curing disease is impossible unless one deals with the individual who is diseased. We do not treat typhoid fever, but we do treat a person who is sick with certain symptoms that we have agreed to call typhoid fever. It is not tuberculosis but the tuberculous whom we treat. The practice of medicine of recent years has drawn rapidly away from this conception with the result that the keenness of clinical perception which Sydenham showed is in danger of being replaced by a rule of thumb sort of practice, growing out of the unfortunate habit of taking a list of laboratory findings, adding them together, dividing by seven, and looking up the quotient in the Bellevue nomenclature. If the recalcitrant sufferer does happen to respond to this method of logarithm, so much the worse for him. In desperation he goes to an osteopath, has his spine adjusted and comes out cured.

This weakness is also inherent in so-called group medicine. Dr. A., the surgeon, Dr. B., the internist, Dr. C., the cystoscopist, Dr. D., the ophthalmologist, Dr. E., the laryngologist, Dr. F., the proctologist, Dr. G., the dermatologist, Dr. X., the radiologist, and Dr. P., the pathologist, each in turn squint more or less intelligently at the diagnosis and analysis of the patient who has come to them for relief. But who constitutes the court of final resort to determine the relative value of each of these many findings in the completed picture? The radiographer diagnoses an ulcer of the stomach which the surgeon proceeds to disapprove by ocular demonstrations; while the internist describes a variety of hypothetical conditions which are disproved at the autopsy. The group may be inter-

dependent, but unless it is a remarkable group it is prone to fall into error according to the ancient formula—too many cooks spoil the broth. Any athletic coach will recognize the difference between a star foot ball team and a football team of stars. The former is a well-rounded unit that plays the game; the collection of stars is not a unit. If one can make a unit of himself by broadening his appreciation of the task that he has set himself in treating disease he will at once recognize that he must accumulate a wide experience before he is able to determine the individual variations which characterize the same disease in different sufferers. That one may train his observation so that his clinical facility amounts to intuition is proven by that host of the fathers of medicine from Hippocrates to Pasteur who, with little to aid them but their natural powers, nevertheless accomplished wonders in the recognition and classification of disease. Now it is obvious that no one man can perfect himself in all the details of laboratory technique, nor keep in perfect touch with the advances of surgery, obstetrics, ophthalmology, etc.; but if he elects to practice internal medicine he will be the better diagnostician for a general experience in all of these branches. If he chooses to specialize on the heart he must remember that, however essential the heart may be in the body's economy, it is influenced by the same factors that cause disease elsewhere, and suffers with the other organs, in some degree. The general practitioner must on the other hand learn that the mere presence of a heart murmur or of an irregularity does not mean that heart disease is present and condemn his patient to a life of terror because of a weak heart. In any individual case the skilled laboratory man can supply an electrocardiogram and help with the niceties of cardiac diagnosis. But apart from this technical side, any practitioner of medicine may learn to estimate the power and capacity of the heart for work, and it is his duty to broaden himself in this way, just as it is the duty of the specialist to keep himself from being made narrow by the confines of his specialty. Two things are very apparent in the practice of medicine. One is a tendency to accept as final the teachings of the medical school, and to crystalize at or about the point of graduation. This is particularly noticeable in men who graduated thirty years ago. Bright's disease at that time was generally considered to be a progressive and incurable condition and graduates of that period still accept it as such. In the same way they are apt to regard a heart murmur as the evidence of a diseased heart and to treat it as a fixed condition that will sooner or later result fatally. The other is a tendency to put too much emphasis upon the results of limited personal experience. It is altogether too common to hear men declare that they have done thus or so in the way of treatment, or have neglected some other step that is generally accepted as wise, when prevailing experience is overwhelmingly against them. This must not be construed to mean that one should not use intelligent initiative and act according to the dictates of ripened judgment, nor does it mean that he should blindly follow accepted teaching which, after all, may be wrong. The point to be emphasized is that too many men neglect to keep in touch with the progress of their art, and so fail to provide themselves with the background of experience which their fellow-practitioners are providing for them. The more widely one reads and the more care-

fully one applies the test of common experience in the solution of his individual problems the more carefully does he train himself in clinical observation, and the better does he sharpen his wits to meet the real test of his professional skill—namely, his ability to meet individual problems successfully and so alleviate suffering and make life happier and better.

H. G. W.

THE PROBLEM OF THE TRAINED NURSE.

TO ANY ONE who has read Dickens' story of Martin Chuzzlewit, the characters of Sairy Gamp and Betsy Prig stand out with a clarity that fills one with gratitude to think that their day has gone by, for they and their like are the *raison d'être* for the trained nurse. "Bottle on the chimbley piece and let me put me lips to it when so disposed" was Sairy's motto; at least one of her mottoes. Betsy Prig objected to Sairy's snuff in her tea. She said it didn't make any difference in invalid food, but she herself didn't care for it. It is a far cry from the fat, slovenly, lazy and none too sober Sairy to the registered nurse of today, and the contrast between that picture and the dainty, well-educated and efficient hospital graduate is a striking one. But between these extremes there has been a development in the care of the sick that has more than kept pace with the development of the profession of nursing; it has indeed outstripped it. When Florence Nightingale undertook to organize wholesome and efficient nursing care for wounded soldiers she did not realize and she could not have envisioned the tremendous development of the Red Cross nursing organization. Nor could the growth of public health nursing with its wide-spread ramifications have been dreamed of. Neither could the growth of the modern hospital with its intricate organization have been conceived by those to whom the idea of the hospital as a place for the care of the plague stricken in medieval times, was both an inspiration and a tremendous innovation. Today the field for the trained nurse is an ever broadening as it is an ever developing one. By that I mean that the idea of a trained sickroom attendant has perforce given way to the broader conception of the trained nurse as an educational institution. For today we may picture trained nursing as a sort of tree having its roots in the hospital training school and spreading out its branches to include district nursing, school inspection, prenatal instruction; health department activities in the field of child hygiene, contagious diseases and what not; rural health work, including both the educational and the strictly nursing branches; industrial nursing in manufacturing plants; domestic hygiene as illustrated by the health propaganda work instituted by the insurance companies; the host of special functions arising out of the war reconstruction demands; post graduate instruction work in the hospital training schools, beside the strictly defined work of private nursing. A single glance at this array of opportunities for individual activity makes it easy to perceive that the problem of nursing, simple in its inception, has become a complicated one. The demands of all these specialized branches, carrying as they do the particular appeal of regular hours and steady pay,

readily explain the shortage of trained nurses for private work, and also offer a reasonable explanation for the attitude which has demanded higher pay and shorter hours in private nursing.

But the opening of this broader field has resulted in distinct hardship to those who most need consideration—the great middle class of people of moderate income who need nursing care and who cannot afford it. It may be that the eventual solution will be found in the official establishment of a class of nurses midway between the so-called sick attendant and the registered nurse for whom a shorter period of instruction can be secured which will nevertheless be adequate for most sick room demands. This plan would make it possible for those nurses who are looking forward to more or less independent work as training school supervisors or in public health work, to pursue a fuller and more technical course fitting them for their more highly specialized duties, while the shorter course of study might well serve to attract a larger number of desirable applicants than are now available for private nursing.

H. G. W.



TRANSACTIONS OF THE BROOKLYN SURGICAL SOCIETY.

Regular meeting of the Brooklyn Surgical Society, held at the Building of the Medical Society of the County of Kings, 1313 Bedford Avenue, Brooklyn, N. Y., Friday, December 10th, 1920, at 8.30 P. M.

The President, Frank D. Jennings, M. D., in the Chair.

Program.

Medical Education and the Interne. What Brooklyn Hospitals are doing for the Interne.

1. Long Island College Hospital.
Dr. Robert F. Barber.
2. Methodist-Episcopal Hospital.
Dr. Roger Durham.
- Jewish Hospital.
Dr. Joseph Raphael.
4. St. John's Hospital.
Dr. Warren L. Duffield.
5. Brooklyn Hospital.
Dr. Ernest K. Tanner.
6. St. Katherine's Hospital.
Dr. John F. Griffin.

Address:

Medical Education and the Intern.
Dr. William Pepper,
Dean of the School of Medicine,
University of Pennsylvania.

Discussion by Drs. John E. Jennings, J. Bion Bogart, William Linder, Dr. Jacobs, Superintendent of Cumberland Street Hospital, Raymond P. Sullivan, Richard W. Westbrook, Joseph P. Murphy and William Pepper.

FRANK D. JENNINGS, M. D., President.

ROBERT F. BARBER, M. D., Secretary.

Address: Medical Education and the Interne.

Dr. William Pepper.

Dean of the School of Medicine, University of Pennsylvania.

Mr. President and Members of the Brooklyn Surgical Society:

I am very glad to talk to you on this subject, although I do not pretend to know much about it, but I have it greatly at heart and I am glad to see that you are all interested in it because this is a subject of growing importance.

The education of the interne and the improvement of the interne service is being discussed more and more, not only by such organizations as the Council on Medical Education and Hospitals of the American Medical Association, but also by the different state Licensing Boards and by the Medical Schools, and it is being considered by the internes themselves, and those who are soon to become internes are inquiring about the instruction which they hope to get and asking which hospital gives the best instruction; so that it behooves hospital managers, superintendents and visit-

ing staffs to see that the good old-fashioned hospital interne service where the interne was expected to do a great deal of work and pick up what he could must be now changed, and visiting staffs must realize that they should actually be teachers.

The growing recognition of the importance of the interne year has led to the Council on Medical Education adopting an additional name to which your Chairman called attention by calling themselves the Council on Medical Education and Hospitals.

The American Conference on Hospital Service recently formed has held several meetings in Chicago, at which delegates from various organizations were present, including representatives of the American Medical Association, American Hospital Association, Association of American Medical Colleges, American College of Surgeons, etc. The fact that eleven medical schools require this hospital interne year before granting their diploma is evidence of the appreciation by the medical schools of the educational value of internships. These medical schools only grant their diploma to students who complete their year in a hospital approved by the schools. These eleven medical schools are:

- The Medical School of the University of Minnesota
- Leland Stanford University
- Rush Medical College
- University of California
- Northwestern University
- University of Vermont
- University of Illinois
- College of Physicians and Surgeons, Los Angeles, California
- Loyola University
- Columbia University, College of Physicians and Surgeons
- Detroit College of Medicine and Surgery.

Ten states require of those wishing to obtain a license an interne year spent in a hospital approved by the State Licensing Board, the nine states being:

- Pennsylvania
- New Jersey
- Alaska
- Rhode Island
- North Dakota
- Washington
- Illinois
- Michigan
- Iowa
- Texas.

Living in Pennsylvania, I have been in touch with what has been done by the Pennsylvania Bureau of Professional Education and Licensure. I can recall when the bill was passed by the legislature making it necessary for all who wished to practice in the state to take an interne service. There was great rejoicing in the hospitals. The hospital authorities thought that this meant thereafter internes would not be able to pack up their grips and leave without warning if they did not like the service, or if they had a little row with the superintendent, nor would men be able to break their promise after agreeing to accept internship in a certain hospital. The hospitals thought that the interne problem was solved, that many of their difficulties with internes would be a thing of the past. All the hospital would have to do would be to report the troublesome interne to the Bureau and he would not be allowed to take his examination for licensure; of course there have been a few such cases but the hospitals soon found out, however, that they were going to be coerced more than the internes.

Dr. Baldy, the head of the Bureau, and the other members began an inspection of the hospitals and as a result only certain hospitals were put on the approved list, and, strange to say, some of the best hospitals in the state were left off the first list.

From that day to this the Bureau has been insisting that the hospitals of the state should make various changes so the interne would get a better service. I asked the other day if they had brought about changes in most of the hospitals in the state and I was told that they had made many changes in every hospital in the state.

You can see from this what a tremendous force—what a “big stick,” the bureau has wielded over the hospitals in Pennsylvania and the result has been that the internes get a better service I believe in every hospital

in the state of Pennsylvania than they would have done if this law had not passed.

In certain states the schools require a hospital year before granting the degree of M. D. and these schools have exerted a certain amount of moral suasion. They tell certain hospitals that unless the service given the internes is improved the medical school will not advise the students to go to those hospitals. If the students insisted, they would not get credit for the year and would not receive their diplomas.

It is my firm belief that the schools have not been able to bring about as great changes in the hospitals as have the state authorities. I think it stands to reason that the state, with the law back of it, should be able to bring more force to bear on the hospitals than the medical schools could. It is however, I suppose, a debatable point. In some schools where this requirement is in force, the faculties believe that they can insure proper instruction being given to their graduates who are serving as internes. They believe they can keep in touch with their graduates who are serving as internes and learn how they are getting along. It is my firm conviction that both of these methods should be carried on together and that the schools should take more interest in the service which their graduates are getting in the various hospitals. For example, I have recently sent out a questionnaire to all of the graduates of a certain class from our medical school who are serving in hospitals, and in this I asked about the service these men were getting, whether it was satisfactory or not, the kind of work they were doing, the amount of laboratory and of autopsy work, and how much opportunity they got to assist at operations, whether they had an obstetrical service and if so, how many cases they saw delivered or delivered themselves; and then I called their attention to the growing recognition of the hospital year as an educational one, and I asked them if they had any suggestions whereby the hospital interne year could be made of more educational value, and many of them answered that question quite freely. Some of the criticisms offered came from internes in our best Philadelphia hospitals, and others from hospitals outside of the city and some from outside of the state.

I have made a list of some of the replies from these internes and I think they are worth while reading to you while we are discussing this subject. It is just a list of answers to this one question as to how these internes think the hospital year could be made of more educational value. Some of them answered in a general sense, some of them thought I meant in the particular hospital in which they were serving:

One of the troublesome duties of a Dean at this time of the year is to have men come in and ask about some hospital in Detroit, Denver, Chicago, or Jacksonville, and expect to be told whether the staff is a good one, whether there is a good autopsy service, an out-patient department, etc., and the student asks questions which I don't believe any man could answer unless he had personally inspected every hospital.

I think that the extracts which I have read you seem to show, however, that in many hospitals the chiefs do not teach the internes as they should and that they do not devote enough time to careful routine ward work. A common suggestion is to have meetings of the staff and internes to discuss cases. Personally I think the most important service the staff can render is the careful checking up at the bedside of the interne's physical examination, the discussion with the interne of the diagnosis and the treatment, the followup by the chief and the interne together of the case either to the operating room or the autopsy table.

One difficulty which I feel sure is growing less each year has been due to the number of hospital staff members who have been incapable of teaching the graduates of our medical schools today so much better prepared than formerly. By that I don't mean to criticise in general hospital staffs, but I want to draw attention to the fact that I think the level of education in the interne has been increasing rather rapidly in recent years, while hospital staffs have been improving at a less rapid rate. I perhaps speak from a somewhat prejudiced point of view, as one doing administrative work in a medical school, and not as one connected with a hospital. When you realize that 90 per cent of the medical students in this country last year were enrolled in Class A medical schools, and that 43.5 per cent of the men who graduated in medicine last spring were college graduates, and that each year the percentage of graduates from Class A schools has increased; for example, last year, the number who graduated from Class

A schools was 470 greater than the year before while 116 fewer graduated from Class B schools than the year before, you can see that each year you are getting in the hospitals as internes a better prepared lot of men. Nearly all the graduates now are from Class A schools, and in addition, almost half of them are college graduates. The teaching has improved materially, even in the best schools, so that the interne of today, when he comes to the hospital, is a much better man than he was twenty years ago, and it takes, of course, a better man to teach him, and with all the refinements which are now included in the medical curriculum, I imagine that Chiefs are sometimes troubled to explain certain matters to their internes. It does require today, if a man is going to teach the interne, a good deal more knowledge than it used to take. I do not believe that up to the present time the non-teaching hospitals have given thought in electing or appointing chiefs, to the question as to whether the candidate would be able to instruct the internes, and yet I think that is something which will be considered in the future. It can never be the only thing. If we were only to appoint to hospitals, chiefs who were good teachers and who were men who had the time or the willingness to teach the interne, our private rooms might not be so full and the operating room might perhaps not be so busy. I do not pretend to maintain that in selecting hospital staffs that teaching ability should be the only thing to be taken into consideration, but I think if hospitals in the future would not entirely overlook this qualification they would then be able to get a better type of interne and would have a greater variety and a greater number of internes from which to choose. I feel that if a hospital today should get the reputation of having a staff capable and willing to instruct internes, such a hospital should never lack a steady supply of enthusiastic and intelligent young men anxious to learn and to work. A poor visiting staff, of course, results in a poor staff of internes, and thus a vicious circle is established, and the poor work of one brings about poorer work by the other.

Teaching hospitals, I believe, are being more and more appreciated by our students each year, because they know that in them the internes will meet men who can instruct them and who will be able to do so. As I said before, I hear less and less the statement from men who are looking for hospitals that they don't want to go to a teaching hospital because in it they will have no responsibility of their own. Ten years ago it was a common statement—"If I go to a teaching hospital I will be told how to do everything, or I will only see things done. I will never be able to do it myself. I will never be able to even do aparacentesis or tap a hydrocele. I will always have to stand by and see various procedures demonstrated by some professor to a group of students." That used to be the reply ten years ago when you advised a man to go to a teaching hospital, but now it is not one man in twenty who raises such objections.

Hospital staffs should realize that a new honor is being bestowed upon them and that they are actually being made, perhaps without their knowledge, members of the faculties of all of the medical schools of the country, and to them has been delegated in large part the teaching of this most important year of the curriculum; that is, the fifth or hospital year. Of course, as with so many of these honors which are bestowed upon us come duties which are not lightly to be put aside, and every chief in every hospital in this country that admits internes should seriously take up his teaching duties and pay attention to the work which is incumbent upon him in consequence. Every really good teacher in our under-graduate schools has to prepare himself for his lecture or his clinic. He must read and study before coming in front of his class, and I think it is proper to state that it is equally important that these teachers of post-graduate students in the hospitals should take their pedagogical duties seriously and prepare themselves to instruct their students.

I was very much pleased to hear from the different speakers that so much is being done for the internes in the Brooklyn hospitals, and the very fact that so many of you have gathered together to discuss this topic shows that you appreciate the importance of it, and I can assure you, from having talked about hospitals for a number of years with medical students, that the word gets around among them and spreads from class to class that in certain hospitals something can be learned, mistakes are corrected and chiefs take an interest in the work. You all wish to insure against any possible shortage of internes, this is an important point because of the increase in the number of hospitals and the increase in the size of hospitals and the reduction in the number of graduates which has been

taking place in the last fifteen years, though it does now seem that more men are undertaking the study of medicine.

This question of the shortage of internes is a serious one and you can take out no better insurance against it than by letting it be known that you are really making this hospital year a fifth college year, and that is what it really should be.

You gentlemen who are now ex-officio members of the faculty are the ones to teach this fifth college year, and it is a serious duty which is imposed upon you. If you carry out your task in the proper way, you will get better internes and you will get more internes and you will be better preparing the coming generation of practitioners of medicine of this country.

Medical Education and the Interne,

At the Long Island College Hospital the service is arranged so that Medicine and Surgery both take one year. I shall describe the surgical service as a type of the arrangement.

The resident is in charge of the entire service. He is responsible for the work of the internes and is first assistant on operations.

His assistant resident is in charge of the fracture service and acts as first assistant on the second operating team.

There are four internes assigned to wards in rotation. They take the histories, do the physicals and the laboratory work and act as second assistant at operations on their own cases. They do all the post operative dressings on their own cases.

As ours is a teaching institution every case is thoroughly worked up from the teaching standpoint, and the interne is present at the ward demonstrations of his cases. Practically every case he has is gone over by his attendant before the class, and he is given the advantage of a check on all his work. We do not aim to make operative surgeons of our internes, but each man gets a fundamental training in surgical diagnosis and treatment, and aftercare of patients. This we believe to be the function of the institution for the interne.

"What Brooklyn Hospitals Are Doing for the Interne."

The Methodist Episcopal Hospital.

It is an axiom that the role of the hospital in the education of the interne must be along practical lines in the main. Medical School courses have supplied the theoretical subjects in their entirety, and have also given a goodly start in the practical application of the principles so laid down. The foundation for the practice of medicine and surgery has been covered; and in the hospital the next steps in the building of the edifice that must stand and grow through life are to be attained.

Here the graduate must try his handiwork in the various branches of the practice of the art of healing; he must put into execution what he learned in the school; he must meet face to face the actualities of his art; he must mingle with the humanics of his calling; he must learn to classify and arrange; he must think in terms of ability to heal and repair; he must know how to handle that most sensitive and troubled class—the sick and diseased; he must be tender with the frail, firm with the weak, optimistic with the doubters, and sympathetic with the sufferers.

Here he must begin to note the first sign that may lead him in the lines of endeavor that he is to follow more and more exclusively in the coming years. He must learn to sense in which direction his talents, training and aptitude will best succeed, and best serve him. Internship has determined the special line of endeavor of many an interne, has directed his future, has made his life work what it was to be.

In the hospital the interne is thrown in such close and intimate association with his fellow students as is possible, I feel, in no other calling in life. What a determining factor in his future experience this may prove, who can say? One has only to look back upon the events developing from his own experience in the past to know how potential a truth this is.

Possibly the greatest of all the factors in this process of training is the association with the leaders of the various hospital departments in which he finds himself. Here he walks side by side and in close intimacy with the men that will give the final shaping to the individual that will soon be turned out in the world to walk unaided in his community. Here again, can one say? of how great moment this association may prove or what tremendous influence it may have on his future being. Everywhere about us in our groups of acquaintances one can repeatedly see examples of this, and in truth no man but has felt its effect.

I would therefore say that the hospital influence that does the most for the interne must have certain basic qualifications.

It must have a strong staff of representative men filling the positions in all the major and minor departments of medicine and surgery.

It must be a large enough and active enough institution having all the facilities and equipment as to laboratory, X-ray and other departments that make for a complete modern hospital.

The internship should be so arranged that each interne may rotate periodically from department to department, so as to acquire a broad and comprehensive training.

At the Methodist Hospital no interne has gone successively through his service of training without acquiring a broad practical education for which he becomes increasingly appreciative with the passing years. It has always been held an axiom there that the idea of training a man exclusively as a surgical interne or exclusively as a medical interne was narrow in conception, unsatisfactory in results to both institution and individual, and an injustice to the man in not giving him all of its best. The so-called mixed service *per contra* gives from all of its best, appeals to the highest type of student, and a hospital with such a service does not have to hunt for the best men to fill places on its staff.

Such an arrangement of the services as I have depicted here form the working plan as used at the Methodist Hospital. It is intended for a two year service with eight men, and as may be seen goes by progressive steps through all the departments. Thus each interne learns his capacity and capability for each line of work, and thus his choice for his future work may be determined. He is broadened by association with all the heads of departments, assimilates their methods, ways of thought, and technique, and can absorb the best that each reveals. He learns to note how each meets and handles the varied problems, and different people. He compares technique, and methods; acquires strong points, and at times, one may suspect, even notes details not to be imitated.

This mixed service appeals to the medical student in the seeking, appeals to the interne in the experiencing, and appeals to the ex-interne in the retrospect. No graduate should begin his career as a specialist, for in doing so he makes himself of narrow vision; will never think beyond his specialty, and will never understand disease processes as they affect the whole body. The eye does not exist in itself, neither does the ear. The inter-relation of the whole must be understood. Specialization must come after years of generalization. The mixed service, therefore, makes for better training, broader training, and thorough preparation for the later specialization.

That the monthly staff conferences, at which all the professional staff meet, and discuss histories, mortality, morbidity, etc., have proved a wonderful factor in the betterment of hospital morale will be generally admitted. Every man is thereby kept on his metal, and this applies very directly to the interne. It makes for better history records, more complete follow up notes and continuous notes and dressing items; it stimulates more careful examinations and accurate diagnosis.

The histories that have been carefully taken, and the preliminary examinations that have been previously made, written and signed by the interne, together with his own diagnosis (for we feel that the habit of making a diagnosis and subscribing to it is of tremendously great importance and value to a better training of the interne) are gone over by the visiting with his interne, and then his examination, recommendations, treatment and diagnosis, and any suggestions for further investigation noted and signed. Consultations are encouraged between the different departments at which the interne should be present. In such ways he familiarizes himself with the methods and ideas of the various staff members, and thereby acquires greater skill himself.

to the fact that the average physician or surgeon of a hospital not affiliated with

In the matter of didactic training it may be well to call attention here a medical school lacks as a rule in these qualifications of teacher. Many of the best surgeons in point of skill in operating, diagnostic ability, and surgical judgment, cannot expound while working the details of the steps of their work. Some of the best medical men may lack in the ability to be good teachers in the didactic meaning. On the other hand the interne is constantly looking upon an endless field of clinical material, seeing the working methods of his seniors at every hour of the day, and living at all times in the atmosphere of his life's work, where he must absorb boundless wealth of all that goes to make for the best training. This is the greatest factor in the broad training completed, and before he starts on his own career.

of the graduate, and the greatest need he has after his medical course is com-

In closing I want to mention one of the really remarkable influences, and one that might well be imitated at all institutions of its kind, that has done so much for our internes. I refer to the Ex-interne Society which is composed of all former internes, and meets once a month at one of the social clubs or at the home of one of the members. To these meetings all the ex-internes and one or two of the internes are invited to attend. A portion of the evening is devoted to scientific matter, with a period for voluntary case reports and topics of interest on medical subjects and a period for formal papers, one or two of which are read and discussed. The meeting closes with a social hour when the older and younger men meet together in a most intimate way, and from which meeting have sprung many of the closest friendships and lasting associations, and that have proved a wonderful influence in the lives of most of the members.

The Methodist Episcopal Hospital has done and is doing much for its internes past and present, more than they can now estimate in words. Ask any one of them, and each will be found an enthusiastic rooter. Show the hospital that it can do more, and that too it will endeavor to do in so far as its individual members are able.

ROGER DURHAM, M. D.

The Jewish Hospital of Brooklyn has a capacity of about 285 beds, a rather active so-called acute service, and an interne staff of 14 men. These men serve for two years, of which period eighteen months is spent on a selected or preferred service, medicine or surgery, the remaining six months being devoted to the other department,—medicine including obstetrics and the specialities.

The internes are, at present, appointed on recommendation rather than after competitive examination. They are and have been, almost without exception, graduates of the various Greater New York Medical Schools. There is but one full time resident, the attending in pathology and one graduate in medicine may elect a year in the pathological laboratory, such time, however, not to count as part of a regular internship.

Training. Surgical. The surgical service offers a reasonably broad and general field for routine training in diagnosis and after-care, with an equally good opportunity to familiarize oneself with surgical technique in the capacity of an assistant. The number of major operations actually performed by the house surgeon himself is never very great.

Medical. Medical rounds are regularly made with complete staff of assistants and internes on the service and are characterized by a free discussion of the cases.

Pathological. Routine laboratory technique is under the direct supervision of the resident pathologist. Effort is made to avoid a confusion in procedures by personal instruction where this is found to be necessary. Autopsies are few in number both actually and relatively.

Societies. In 1908, a Clinical Society of the Hospital was started. It met once a month and its scope included a presentation, when possible, of cases from the wards of the hospital or the histories of such cases. The internes participated, in part, in the preparation or presentation of these case reports although, naturally, the major part of the work was in the hands of the attending staff. In spite, however, of a rather auspicious beginning, sustained effort and interest were evidently wanting, and for some years before the War Period as well as during that time there was no active organization at all to render generally accessible and available the clinical material of the hospital. In 1919, there was a reorganization of the Clinical Society and since then meetings have been held regularly and well attended. With the idea of making use of hospital statistics, there seems to be a preference now for short papers

and symposia rather than the less formal case reports. The status of the interne as far as his participation in the activities of this society is connected is about the same as it was in the original society. Because of the interest that is at present shown in its meetings, there is some question as to whether the scope of the society may not be broadened to include the Clinical Conferences made obligatory by the minimum requirements of the American College of Surgeons.

Library. The first attempt to establish a library for the use of the internes and attending staff was about five years ago. Funds were obtained by voluntary subscriptions by the visiting staff. Unfortunately, however, there was a rather loose organization without a responsible directing head to the library, and such publications as were on file were abused as much as used, so that eventually annual subscriptions were allowed to lapse. It is a question whether the responsibility for this rested with the internes for their lack of property interest or with the attending staff for its failure to provide proper control.

In 1919, through the efforts of the resident pathologist, aided by contributions from his department, many magazines in addition to those of a purely technical nature were again available to the house staff. These publications were on file in the laboratory quarters but every encouragement was offered for their general use. This year, through a donation of the Board of Directors of the Hospital, a definite library fund has been created. The library will now be under the general supervision of the Medical Director of the Hospital with a governing control by representatives from the house staff, a friendly arrangement with the pathological laboratory adding several of the latter's publications to the general staff library.

To encourage the use of this library, a Reading Club has already been formed among the internes for the purpose of abstracting and discussing pertinent current literature.

The fact that there is a responsible supervision and a certainty of income would seem to be a reasonable guarantee of the permanence of the library.

WHAT BROOKLYN HOSPITALS ARE DOING FOR THE INTERNE.

ST. JOHN'S HOSPITAL.

Warren L. Duffield, M. D.

(Read before the Brooklyn Surgical Society, December 2nd, 1920.)

What a hospital can do for an interne is, in part, dependent upon what the interne will allow the hospital to do for him.

I suppose that during the past few years practically all hospitals have suffered from a dearth of internes and have at times been compelled to accept men of an inferior type. This type of man is so filled with excuses that there is no remaining space for work. He is never on time for operations, dressings are slighted and histories remain unrecorded. But for all these failings an alibi is always at hand.

He and his fellow conspirators have marked the calendar for weeks ahead indicating their time off; he is an ornament but not a necessity. One can stand by and guide such an individual through a herniotomy or other operation but it is time wasted. Supply such men with a library and they consider it a personal gift and remove it to their homes for permanent reference.

Frankly discuss with them a patient's condition, hoping to stimulate their zeal and interest and you are classed as a first-year medical student and they feel that they are entitled to a consultants fee for the aid they have given you.

Fortunately these conditions are of the past and not of the present and the traditions and examples of the men now available will go far toward restoring the best standards of internship.

The average house officer aims, unwittingly perhaps, at being an operator rather than a surgeon. The spectacular appeals to him as it does to most of us and he would rather spend his time in the operating room than in the wards or laboratory. How can we make the acquisition of diagnostic skill and surgical judgment more attractive?

A method which has given satisfactory results has been to frankly inform the surgical house staff that the number and character of operations they would be permitted to perform would be dependent not entirely upon their skill as operators but also upon the time and intelligent attention given by them in properly working up and following up their patients.

They have been encouraged to make their own diagnoses, whenever practicable, and in so doing have also been encouraged to use all reasonable diagnostic aids.

Where the nature of the case permits, a frank discussion has been entered into with them, and my own diagnosis with the reasons for making it have been placed on record verbally or in writing. It is needless to say that where an error of diagnosis has been made, discussion has followed and I freely confess with profit to all concerned.

Reduced to its simplest terms it amounts to team work between attending and house staff and it can be carried on without loss of dignity to either.

Frank discussions stimulate interest which leads to more accurate histories, more careful physical examinations, the greater use of the laboratory and, where indicated, the roentgen ray.

As our histories are indexed according to the nomenclature adopted by Bellevue Hospital all diagnoses have to be made to conform to this standard—this leads to accuracy and lessens confusion.

At the close of each monthly meeting of the attending staff all cases of delayed recovery and all cases of death are reported. One member of our staff, Dr. Thomas, has this matter in charge and at each meeting calls upon the members of the Attending Staff to report the cases above indicated occurring in their services during the preceding month. All records are at hand and a free discussion is encouraged. The house staff are invited, attend these meetings and in some instances report the cases. We consider it beneficial to all.

Since we no longer have assistant attending surgeons who previously acted as first assistants at operations our house staff has apparently shown a greater interest in the work. They come in closer contact with the operator and operation, profit by this contact and appreciate it.

Do we do enough teaching and demonstrating as we operate? I fear not. We are either too hurried, preoccupied or else take for granted that our assistants know and understand. The average interne knows that in doing a herniotomy one has to cut down through several layers of Latin names (to quote a fellow member of this Society) but I believe that he would get a much better conception of the mechanics if they were really demonstrated to him.

What has been said of operations applies with equal force to dressings and after-care in general. Wounds with exuberant granulations, sutures allowed to remain until they become irritants, drains removed too soon or allowed to remain too long point to the need of instruction.

The cause, prevention and treatment of acute gastric dilatation, hypostatic pneumonia and other similar conditions need practical elucidation to the average interne and on these subjects he is as much entitled to guidance and instruction as in any other department of surgery.

It is to be regretted that so few autopsies are obtained. They are of inestimable value to the attending as well as to the house staff. Perhaps concerted action by all hospitals might produce better results.

As a collateral aid to the practical training of an interne a proper medical library containing modern standard books and current issues of the best journals stands pre-eminent. At St. Johns Hospital we are at work upon such a library as a fitting memorial to the late Dr. Frank H. Knight who made the supreme sacrifice in the war just ended.

This paper has been fragmentary and superficial, it has aimed to suggest rather than to elaborate, to provoke discussion rather than to forestall it. The millennium has not arrived but we have ideals and we are working toward them.

Training of the Intern at the Brooklyn Hospital.

The House Staff at the Brooklyn Hospital consists of twelve members who serve for two years. The service is a mixed rotating one with six junior and six senior positions of two months each. Six members are appointed each year and are selected on recommendation from the Dean of their medical school and a personal interview with the applicant when possible. No competitive examinations are held.

In November the following notice was sent to the Deans of first class medical schools throughout the east and middle west:

"The Brooklyn Hospital will select six junior members of its house staff for appointments commencing July 1st, 1921. The service is for a period of two years divided as follows,—

Laboratory—special work.
Medicine.
Surgery A.
Surgery B.
Ambulance.
Anaesthetics.

Medicine.
Pediatrics.
Surgery A.
Surgery B.
Gynaecology—Obstetric, House.
Gynaecology—Obstetric, Junior.

Junior positions,—
2 months each

Senior positions,—
2 months each

The appointments will be made upon recommendation of the Deans of Medical Schools together with personal interviews with the candidates where possible.

The Brooklyn Hospital is an old institution which has recently been completely rebuilt and now has accommodations for 315 patients. It is not under control of the City or State authorities.

The committee will receive the candidates for appointments on Saturday, Jan. 8, 1921, at 2 P. M. at the hospital. An application blank is enclosed."

Last year there were 63 applications received and 48 appeared, some of the others being too far away to come.

The six appointees all begin service on July 1st, a method which has proved satisfactory and is appreciated by the men who are glad to begin their service as soon as they graduate.

There are some disadvantages in the frequent rotation every two months,—

1. From the view-point of the Attending Staff, as they lose their interne just as he becomes well enough trained to be valuable.

2. From the viewpoint of the interne, as he might prefer to remain longer in some department in which he is specially interested.

Our main object, however, is to give to the men a well balanced post-graduate course which shall give a practical application of the principles covered in Medical School, and leave them on completion of their service well fitted to enter general practice; or if they prefer a specialty, with a good broad foundation on which to build. It is no part of our endeavor to produce trained surgeons, internists or specialists. That this sort of a mixed service appeals to the students is indicated by the number of applicants from schools that have furnished internes in previous years, and the fact that men have declined appointments at hospitals giving a less general service to accept at the Brooklyn.

In the work of the hospital an effort has been made to standardize methods and procedures as far as possible, in order to avoid confusion in training the House Staff and Nurses, with the idea that one good method well learned and applied is better than a number of methods indifferently learned and constantly confused.

As to the work done in the different positions, time does not permit a detailed account but we will briefly consider some of it. In the laboratory some of the interne's time is taken by routine urine and blood examinations but much of it is given to the more special examinations, serological, bacterial, chemical and tissue study under the instruction of the residents in pathology and chemistry, until the man is fully competent to do all the more common work with accuracy. On the ambulance and in the emergency ward he has training in minor medicine and surgery, and in addition the internes are encouraged to visit and work in the dispensary as much as they can find the time for. This dispensary work is not part of their regular duties but some of the men take advantage of it as a valuable supplement to their training especially in the specialties.

On all services the House or his Junior takes a history on all patients and makes a physical examination on all but the private patients. He is held up to a good standard of history taking and taught to realize the absolute necessity of an accurate history in making a diagnosis. He make a provisional diagnosis on all ward cases and if the Attending changes it, the reasons are explained to him. Unsatisfactory histories are not accepted and must be revised.

Everywhere a spirit of team work between the Attending and House staffs is cultivated and unnecessary formalities are dispensed with, but those

essential to good work and good discipline are insisted upon. Originality is encouraged and suggestions welcomed and given consideration. The reasons for methods of procedure are explained if not understood and the Attending always endeavors to answer the question "Why?"

In addition to the daily instruction in the wards and operating rooms, all services hold weekly formal rounds and conferences, at which interesting cases are discussed, the reasons for failures or deaths are studied and a general survey of the week's work made.

Follow Up. In proportion as a man shows ability and reliability, he is entrusted with responsibility. Under supervision, at least at first, he does all the various procedures in the care of patients, and in the operating room after a period of assisting he does enough of the more common operations under the direction of a member of the Attending Staff, to become accustomed to the handling of tissues. The amount of operating given to each House Surgeon depends on his ability and the material available on the service.

While ideals are not always attained by either House or Attending, and short cuts are often necessary in a rush of work, it is our endeavor to hold the internes to the best work of which they are capable and to do this not by fear of censure or discipline, but by cultivating an interest in their work and by the best possible cooperation between the Attending and House Staffs, and by giving them such responsibility and privilege of doing major work as the ability of the man and the material available in the wards will permit without in any way reducing the quality of care given to the patient.

A normal House Man will always let it be known if he feels he is not getting a square deal. Our Superintendent states that it has been so long that he cannot remember when he has had a protest from his internes as to the quality of service they are getting.

E. K. TANNER.

Education of the Intern.

At St. Catharines hospital we have at present ten Internes. The time of service is for twenty months. Our plan of taking on one Interne every two months is ideal in a great many ways, but we find it hard to get men to fill the November and January Appointments on account of the long wait after graduating from Medical School.

The first two months are spent in the Laboratory and X-ray department. In the Laboratory the Interne is under the instruction and supervision of the visiting Pathologist. Six hours weekly are spent in the X-ray department under the instructions of the Roentgenologist. The routine examination of specimens and the taking of routine blood counts and wassermann are done by the technicians. This plan leaves the Interne Pathologist free from routine, to devote his time almost exclusively to the more scientific and instructive branches of pathological work. He is, however, called upon at night and occasionally at other times to do emergency blood counts and other examinations.

The next four months of Internship are spent on the medical and pediatric service, two months as Assistant and two months as house physician. I will not go into detail as to what these men are expected to do, as it is the usual work on the medical service of history taking, physical examinations, etc.

The next two months are spent as Ambulance Surgeon, and between ambulance calls the care of emergency dispensary and the dressings of compensation cases. The Ambulance surgeon is relieved for time off by the Assistant surgeon.

The following four months are spent in the Gynecological and Obstetrical department; the first two months as Assistant and the second two months as House Gynecologist and Obstetrician. The remaining eight months are spent on the surgical side. Two months as Assistant Surgeon and relief ambulance. This man does a great many of the dressings, surgical histories and gives emergency anesthetics. Two months as Junior Surgeon and he has charge of the Urological, Eye, Ear, Nose and Throat cases. The last two months as House Surgeon, he has charge of the regular service and the private cases of the men on service.

We have a rule at St. Catharines that on all service operations the Interne acts as First Assistant and he shall be First or Second Assistant at all other operations.

The Interne is given a number of the minor and more common operations to perform himself under the guidance of the visiting surgeon.

We have at the hospital a Library in which there are the latest editions in all the branches of medicine. One of the Internes acts as librarian and he is held responsible for the books and medical journals. The Library is located in a large quiet room which, during the day, is used as a special waiting room and is never used at night except by the doctors and Internes and then only for the purpose of reading and study. At our board meetings we are constantly calling the attention of the visiting men to their obligation to the Interne and we urge them to ask their Associates and Assistants not to forget their duty toward the Interne, to instruct them in every way possible, by bedside discussion, criticism of physicals and historys, reasons for diagnosis, etc.

Two of the most important advances in the Medical Education of the Interne that has been instituted at our hospital, we think, are as follows:

On Monday of each week the Interne is given a printed form to be filled out daily. On this card or sheet are printed the important functions that are done by the Interne, such as, ambulance calls, blood counts, obstetric deliveries, historys, physicals, etc. At the end of the day he writes down in figures in the proper column the number of things that he has done that day, so we can at a glance determine the amount of work he has done for the week or for any period of time.

We have at St. Catharines an Interne Society, the purpose of which is to stimulate study and promote the welfare of the Interne. This society is composed of the entire Interne Staff. They have a constitution and by-laws, their own officers and their meetings are conducted by them according to the usual parliamentary rules. They hold their meetings twice a month at nine-thirty p. m. Two men report two cases at each meeting. These cases are picked from the service on which the Interne is working, are abstracted and gotten into form for presentation. After each case has been presented there is a free discussion among the Internes. After they have finished their discussion the visiting man on whose service the case was or is, is called upon then to summarize the case and make clear if possible the doubtful points. The visiting man whose case is to be discussed is notified before the meeting and urgently asked to be present. All members of the visiting staff are invited to attend these meetings and enter into the discussion. From the amount of enthusiasm and interest shown at these meetings I have no doubt that it will develop into one of the most important branches of interne education in our hospitals.

DISCUSSION.

DR. JOHN E. JENNINGS:

"I think we have all very much enjoyed the reports from the different hospitals and particularly Dr. Pepper's splendid resume of the situation which we have heard tonight. I think it will stimulate all of us who are chiefs of service to do more instructing than we have been doing and spend more time, if possible, in the wards and perhaps get more in conference with our men.

"Some of the comments were amusing and some of them were enlightening, more enlightening than amusing.

"There is a certain amount of pathos in some of those boys, because I don't think any of us have forgotten how we felt about it ourselves when we were serving as internes.

"The intelligent interne lacked, and still lacks, in most of our institutions the spirit of fellowship.

"I think there is one other thing that we might perhaps say in this matter. As Dr. Pepper has said, as we ourselves are more or less members of the faculty, we are ourselves partners in the instruction of the interne.

"I would like to say a little about the interne as we get him. Dr. Pepper says the interne comes to us better instructed in some things than he was 20 years ago—in some things, yes, but not in all. I might say this perhaps with better grace—the University of Pennsylvania is the least of the sinning schools. There are some, however, of which this cannot be said."

At this point in his remarks, Dr. Jennings said that, in his experience, he finds the interne is over-instructed in some things and under-instructed in others, with the result that they might be characterized as biological philosophers. One of the things, he said they were very carefully instructed in, was the subject of anatomy, and in surgery they were under-instructed. After some further comments along this line, the doctor continued, saying:

"In the days when we held examinations at the Brooklyn Hospital we found

a gradually increasing diminution in the power to answer simple surgical questions, and while we have ceased examinations, I believe we would not find any great change in this condition. The man who is thoroughly alive to blood chemistry and such things as that is hardly able to tell the difference between Pott's fracture and Pott's disease. This is a matter which some of the instructors in medical schools might take to heart.

"I am hoping that this fifth year in the hospital will in time work itself out so that the fourth year, and perhaps a considerable portion of the third year, may be spent in dealing with people who are sick, so the interne may appreciate that he is being taught not to be a biological philosopher but a physician, and that he may have that in his mind when he is approaching his internship, and it will make a better interne of him."

DR. J. BION BOGART:

"I have taken to myself a great deal of satisfaction in feeling that I have always been an instructor. I say that without any confusion. As I look around me here I see a great many of the men who have served under me in various hospitals in Brooklyn, and if they were asked individually they would say that I have always been an instructor, and a very painstaking one, so that none of the shafts that have been aimed in a very polished manner have struck me.

"Neither, I may say, have I suffered because of the fact that the internes that have come to me know so much more than they used to. In looking back over my own internship, I can say that nobody ever instructed me, and as for giving me facilities for doing operations, I point with pride to the fact that in the New Haven Hospital during a period of 18 months I did just one operation which consisted in amputating a phalanx of a great toe. However, I am bound to say that the men on the staff of the hospital didn't feel that they had finished with me when I left the New Haven Hospital, and that I owe directly to those men, who gave me nothing in the way of operations in the operating room, the fact that they followed me to Brooklyn and placed me in the institution where I got my first chance, and I have always argued with my internes that it would profit them more and it would do more for them and more for their chiefs if they would take care of the patients, and that that would be the greatest asset to them when they left the hospital; that I as a chief, as well as others, in looking out for internes didn't pick out a man who was a time-saver, but a man who showed an interest in his work and was more concerned about the welfare of his patient than his own individual experience.

complain sometimes to the chief and sometimes to the Board of Directors. I

"It has happened from time to time, as it must to all of you, that the internes think it is within a matter of three years that I was reported to a Board of Directors as being an attending surgeon who didn't know the difference between a fallopian tube and an appendix. I mention that merely to show the type of some of the men who still find their way into the hospitals as internes, in spite of the more recent and better instruction which they receive in the medical schools. So I think there is something to be said on both sides of the question.

"Seriously, I am more than pleased with the discussion that we have had this evening and if Dr. Pepper hadn't come and given us these splendid resumes from the questionnaire that he sent out, which I think are of very great value, the reports from our own hospitals by the various men who have presented them are such that if we take them seriously to heart it will benefit us all.

"The question has come into my mind as to whether the men who are chiefs of services in hospitals should not receive some recognition from the medical schools. I don't say that we need it at all, but it seems to me it would be a courteous thing to do and it would perhaps facilitate this work, if we are to become a part of the teaching staff of institutions, if we were given some recognition on the staffs of these teaching institutions in the way of clinical professors or something of that kind, because it generally works out that where there is a medical school in a city the men occupying chairs in those institutions are the men who know the most in the special branch that they teach. This perhaps applies less to me than to some of the others who have longer to serve, and it is worth thinking over. It seems to me that there is a reciprocal responsibility here. It has been my custom always to hold clinics on the cases on my service to school the men in charge of the ward patients from the internes and so on all the way up until I reach my associates. One great advantage to me if that if I am a little hazy as to the diagnosis I get pretty close to it before it comes up to me, so in this way I act as a sifter of the evidence very much like a judge at the trial of a case, and then I come to a conclusion as to the diagnosis.

"I will not take up any more time except to thank every one who has

participated in this and especially Dr. Pepper for coming here and instructing us, and I hope we will hear from some of the other men yet this evening."

DR. WILLIAM LINDER:

"I see a great improvement in the last two years in the character of the interne. As you all know, during the war, as has been stated, we had an inferior class of internes. We were glad to get any one, but I am happy to state that at the Jewish Hospital now we have a type of men who excel our former men. They are eager; they are willing. All of them are college graduates, and it is a pleasure to work with them. The equivalent has also taken place in the attitude of the Board of Directors of the hospital. It has been a great effort on the part of some of the men connected with the hospital to impress upon the Board of Directors the fact that it is not only an institution to take care of the sick, but that the duty devolved upon it to disseminate knowledge. The result is they are taking up to the situation.

"We are also particularly fortunate in having recently acquired a medical superintendent who can see our side of things and who is also a go-between between the doctors and the Board of Directors. Previously the Directors had as a superintendent a lay individual who would only represent them, and he was more an obstructionist than a help to us. He looked upon the doctors in the light that they were there just to make money in the hospital and he looked upon the institution as a money-making institution that had to pay for itself or pretty nearly so. I am happy to state that this state of affairs is gone; that we are anxious to teach our internes; and that the internes are in a receptive mood to learn; that the Board of Directors are considering seriously their duty to make the hospital an A-1 institution and they are doing everything that they possibly can. I might add that we have even got a contribution from the Board of Directors for a library.

"I think we all feel that we have a duty to perform and from the reports from the various hospitals which we have heard here this evening, I am convinced that we are all doing as much as we can with room for improvement."

DR. WILLIAM FRANK JACOBS, Medical Superintendent of Cumberland Street Hospital:

"It has indeed been a pleasure to me as a hospital superintendent, to have an opportunity to hear what some of the chiefs of service think of the work that should be given an interne.

"From time to time the superintendent, as has been stated, finds himself in the position of a go-between. The visiting very frequently feels that the work is not being carried out as he would like to have it carried out. The interne feels from time to time that he is not necessarily getting the work which he would have but the work which the hospital and the chief would have him do.

"There seems to be a tendency upon the part of the internes with whom I have come in contact in the last ten or fifteen years to assume the higher positions quite rapidly. Very few of the men of today wish to go through the fundamental steps. Most of the men wish to be internists or first-class surgeons in the course of a few weeks. That is a question which resolves itself into the fact that it is necessary at all times, not only for the chief, but for the superintendent as well, to keep the interne in his place. The determination of just what represents the interne's place is somewhat difficult to arrive at. If we consider the interne's viewpoint, he naturally wishes to serve his period of internship in the hospital that can give him more nearly that which he feels he should have. The hospital in its responsibility to the patient must have certain work done. The chief, if his work is to be done properly, must require that the interne perform work which is necessary in the institution.

"This brings us to a consideration of just exactly what we are going to do with the interne. Are we going to have him do a great deal of work? Are we going to have him follow the practices that the visiting wishes him to follow, in order that the work may be done? Or are we going to have him do less of the routine and less of the drudgery and teach him more? I think, as has been expressed here tonight, that we must teach the interne when he comes to us. At the same time some one must do the routine work. This probably can be worked out by arranging the services. We are all through life willing to accept more or less of a compensatory scale, and if we can show the interne that by virtue of accepting certain routine periods of service we will then, upon his development, give him that form of teaching and instruction and that form of work which will qualify him, I am sure we will be able to get him to do the routine and the regular work. That is, I believe, to be the solution of the problem. In other words, barter with the interne to

the extent of getting him to do all phases of the work and then turn around and give him a real good rounding-out service to finish him."

DR. RAYMOND P. SULLIVAN:

"We learned during the war that it is time our internes should be developed in a more general way than they have been in the past. That a more comprehensive training in diagnosis is especially necessary, in order to better interpret ordinary complaints. During the war period we had to manufacture a lot of surgeons, and our most successful results came from those young men who had had a mixed service during their internship, or from that group of men living in the outlying districts in towns of a population of 1,000 and upward, and whose practice was a general one in the truest meaning of the term. These men were more successful in recognizing when the doughboy was really sick or suffering as a result of injury. This may seem a radical statement, but we had the sad experience of having a highly trained man in Internal Medicine and Tuberculosis treat as acute Articular Rheumatism a case of Fracture of the Internal Condyle of the Femur for ten days before transferring the case to the surgical wards. We also had the experience of a highly trained Ophthalmologist fail to recognize a fully developed Pneumonia with Coryza, in more than one instance.

"From these experiences, it seems to me that all hospitals should give a general training for a specific time, and that at the termination of that period, if the interne be sufficiently prepared and interested some opportunity should be given for his continuing along a special line. If he elects medicine, which I personally believe is the real scientific side of the profession today, a training in surgery during his internship will add materially to his qualifications. I shall always favor a mixed service."

DR. RICHARD W. WESTBROOK:

"We have had some experience with residents at the Brooklyn Hospital. We have also had some experience with Dr. Baldy, of Pennsylvania. He is something of a czar, but a very wonderful and far-seeing man, I am sure. I admire the work very much which has been done in Pennsylvania and have come to the conclusion that the requirements which that state makes of hospitals are not only reasonable but wisely laid out. We have profited by arranging our services according to the requirements of the State of Pennsylvania, so I am very much interested in the work done there. I am glad to see that it is spreading. As Dr. Linder said, the quality of the men we get is averaging higher. The men are not only better prepared, but I think they are more amenable to hospital discipline, and they feel that they are still students. They fit in with the hospital better. There is less of flirting with the nurses. They are much more professional, and more interested in their work. I think that encourages the hospital to assume more the role of a teaching hospital. At the Brooklyn Hospital, we have always devoted a great deal of time to our internes.

"I think the rotating service is the service which must be more and more favored in the future. The interne has always been attracted by the rotating service. It gives him a chance to go through every phase of hospital work.

"That leads up to the subject of residents. I believe the residents are coming. Experience with residents in the gyneological service shows such a position to be greatly to the advantage of the resident and the undergraduate interne. I believe the resident idea could be carried out in all the departments of the hospital, and the work, I think, would be very much better. My conviction is that the position offers the man who has special aptitudes the opportunity to go on if he is a fit hospital man, if he fits in with the institution, in other ways, as well as in his scientific knowledge. The first objection, of course, is from the interne himself, but we find that he adapts himself where the resident is introduced, and sees the value of the arrangement. I remember when I was an interne the assistant surgeon was just coming in and the interne objected. After a few years the interne became used to the idea of an assistant surgeon on the service, and I think he will very soon become used to the idea of the resident.

"I think the State of Pennsylvania, and the University of Pennsylvania, are very much to be congratulated on the pioneer work which they have done in this matter of internes."

DR. MURPHY:

"At the present time we are discussing theories. Within a very few years, these theories will have become actual working conditions and brought about probably by mandatory legislation. Before that legislation becomes effective, it is wise that we advise ourselves as to the nature, scope and the ultimate

object to be gained. All of us have practiced medicine more or less, and we are quite well acquainted with a fact that the majority of physicians in their daily routine work, make little use of a laboratory or have a microscope in their office equipment, and whatever laboratory work he does, is usually very elementary, such as urine examinations, and if they can afford it, they send same to a laboratory. The technician has supplanted the doctor as a laboratory worker; and the hospital interne has the natural dislike of spending his time on something which is distasteful, that he cannot commercialize, and that he is already well-grounded in his medical course. Those things we must consider when we are arranging our hospital system; to take care of the man who is coming out under the compulsory hospital education standard. It behooves you gentlemen, who are Chiefs of Staff, to formulate your suggestions and act now; that when those theories which we are discussing have been evolved into working conditions, we may be properly prepared.

"It is my experience that the paid interne in the city hospital is not perfectly satisfactory. In the first place because he is paid, he considers himself on a par or a little above the visitor. He is under the direct control of the Commissioner of Charity and quite beyond your authority. I do not consider the character of the present hospital interne higher than the type of ten years or more ago. I fail to see where a pre-medical education or even an academic degree is an essential requisite for the study of medicine. It costs a lot of money and time to become a doctor, and the poor man's son is practically debarred. A high school education is quite sufficient. The American College of Surgeons, who may be considered the 'successful' men of medicine, is not entirely composed of college men. Many of their degrees are purely honorary. I fail to appreciate where a year in French or Spanish better qualifies a man to practice medicine.

"With the advent of the higher education and its restrictions, we have had the Osteopath, the Chiropractor, and the Christian Scientist. In the old days it was the survival of the fittest, and we had ample doctors and good doctors adequate in proportion to our population.

"At the last meeting of the King's County Medical Society, we were advised that a shortage of doctors existed, particularly in the rural districts. This is a condition, not a theory, and it behooves us to meet and remedy this condition. One year in a hospital, and I believe that is the Pennsylvania law, may be quite sufficient. How is that year going to be spent by the interne, and what provision does the state require hospitals to make, and how divide the time that the instruction and experience be adequate?"

DR. JOHN E. JENNINGS:

"In the first place, I would like to point out that the interne of today is not in the same position as the interne of twenty or ten years ago. He cannot be. He fails in many instances unless he has responsibilities. That is objectionable to him on the other hand for many reasons. There is one reason: He is not as well prepared as he was twenty years ago. He is not prepared to deal with the average emergency material which comes into the hospital as was the interne of ten years ago. Of this I am still persuaded. He is still a student in his ambition and in his point of view. There is no doubt at all that you cannot take a resident and after he has passed through his internship, make him very much like the resident of the old days. Then what are you going to do with the assistant? Where does the assistant visiting come in? How long will he last? In other words, this thing must be worked out straight. If the resident is coming, the assistant visiting is going, and the resident's term of years is a matter which must be considered. If he stays very long he will be a candidate by the time he goes out, for a visiting. These are problems which must be worked out.

"Personally we are getting along very nicely on our service at the Brooklyn Hospital without residents. We could give them more responsibility if we had longer terms of service, but they come to us not quite so well trained and not quite so fit for their responsibilities, and in order to be residents they must serve as internes.

"I think we should remember once more, in considering this whole subject of medical education, the first aphorism of Hippocrates that 'Life is short.'"

DR. FRANK D. JENNINGS:

"The Chair would like to ask some questions:

"Dr. Tanner, you said that the interne makes no physical examinations on private patients, is that right?"

DR. ERNEST K. TANNER:

"No."

DR. FRANK D. JENNINGS:

"Then, who makes them?"

DR. ERNEST K. TANNER:

"The attending if he does not have the interne do it."

DR. FRANK D. JENNINGS:

"Does that include vaginal examinations?"

DR. ERNEST K. TANNER:

"No; in most cases, the interne makes everything except vaginal examinations."

DR. FRANK D. JENNINGS:

"Are internes present at the weekly conferences?"

DR. ERNEST K. TANNER:

"Yes."

DR. FRANK D. JENNINGS:

"Do they participate?"

DR. ERNEST K. TANNER:

"Yes."

DR. JOHN E. JENNINGS:

"By request."

DR. FRANK D. JENNINGS:

"By request of whom?"

DR. JOHN E. JENNINGS:

"The chief."

DR. FRANK D. JENNINGS:

"That is, the internes may say something if they are invited to do so. Is that correct?"

DR. JOHN E. JENNINGS:

"Yes."

DR. FRANK D. JENNINGS:

"They do not participate in the discussion. Is that right?"

DR. JOHN E. JENNINGS:

"Yes."

DR. FRANK D. JENNINGS:

"I would like to ask Dr. Duffield if the internes attend the monthly meetings?"

DR. WARREN L. DUFFIELD:

"Yes."

DR. FRANK D. JENNINGS:

"Do they participate in the discussion?"

DR. WARREN L. DUFFIELD:

"Yes; they are perfectly free to discuss without invitation."

"In many instances they are called upon to report cases."

DR. FRANK D. JENNINGS:

"Dr. Raphael, your Clinical Society, is that case-reports?"

DR. JOSEPH RAPHAELS

"Discussion of cases."

DR. FRANK D. JENNINGS:

"Do you review records?"

DR. JOSEPH RAPHAELS

"Yes. The last few meetings have been symposia, though."

DR. FRANK D. JENNINGS:

"On what?"

DR. JOSEPH RAPHAELS

"On pernicious anemia, for example, with the reading of seven or eight papers, and an interne might have one paper."

DR. FRANK D. JENNINGS:

"It isn't a review of the hospital work, is it?"

DR. JOSEPH RAPHAELS

"The statistics of the hospital are always brought into the discussion. These meetings are not clinical conferences as yet."

DR. FRANK D. JENNINGS:

"Do you discuss mortality?"

DR. JOSEPH RAPHAELS

"Yes, such as appears in the record."

DR. FRANK D. JENNINGS:

"Morbidity?"

DR. JOSEPH RAPHAELS

"Yes."

DR. FRANK D. JENNINGS:

"Dr. Barber, you spoke of the resident and assistant resident."

DR. ROBERT F. BARBER:

"The assistant resident."

DR. FRANK D. JENNINGS:

"Well, what does the interne do at Long Island?"

DR. ROBERT F. BARBER:

"The assistant resident service is practically the same as the second resident. There are practically two services. The assistant resident has charge of the fracture service and one of the other wards, and he acts as head of the second operating team; that is to say, from the standpoint of the resident staff."

DR. FRANK D. JENNINGS:

"He is really not an assistant resident?"

DR. ROBERT F. BARBER:

"That is simply his title."

DR. FRANK D. JENNINGS:

"He acts as second resident?"

DR. ROBERT F. BARBER:

"There is work for two residents."

DR. FRANK D. JENNINGS:

"My question was not what the resident did, but the interne."

DR. ROBERT F. BARBER:

"The interne in the ward—take the male service wrd, for instance. There is one interne in charge there. He takes all the histories and makes all physical examinations, and he is assistant at the operation which is performed on any case in the ward. He does all post-operative dressings, makes all operative notes and follows the case until it leaves the hospital, under the supervision of the resident."

DR. FRANK D. JENNINGS:

"He is the second assistant at the operation, is that correct?"

DR. ROBERT F. BARBER:

"Yes."

DR. FRANK D. JENNINGS:

"Is he ever first assistant?"

DR. ROBERT F. BARBER:

"He is practically never first assistant."

DR. FRANK D. JENNINGS:

"Does he ever get an operation to do?"

DR. ROBERT F. BARBER:

"Yes. We plan, ordinarily speaking, that an interne shall have one or two hernias and one or two appendices in order to give him confidence in his own ability."

DR. FRANK D. JENNINGS:

"In what period of time?"

DR. ROBERT F. BARBER:

"Two months."

DR. FRANK D. JENNINGS:

"Are they salaried?"

DR. ROBERT F. BARBER:

"Yes, they get \$600.00 a year."

DR. FRANK D. JENNINGS:

"How long do they serve?"

DR. ROBERT F. BARBER:

"They serve anywhere from two to three years."

DR. JOSEPH P. MURPHY:

"At the present time we are talking of theories. Within a very few years these theories will become conditions, actual working conditions."

"Now, we have all practiced medicine more or less and we all know that the average doctor does not even have a microscope and does very little in the way of blood analysis or urinary analysis, and whatever clinical work he does is purely elementary."

"Now, you have got to arrange some sort of system in your hospitals that will take care of the man who is coming, who has put a certain definite period of time in the hospital, and it behooves you gentlemen who are chiefs of staff to act now and make your suggestions in order that when this condition which is now in the theory is evolved into a condition that you are actually up against, you may be prepared for it."

"The paid interne in the city hospital does not work out to our entire satisfaction. In the first place, he considers himself on a par or a little above the ordi-

nary visiting, inasmuch as he is paid, and as he is under the direct supervision of the Board of Charities, you don't have the authority over him that you have over the ordinary interne. Again, it was found that they disliked very much doing laboratory work. To my mind, it was quite right because that work could be done, and was done, by a technician who was well trained and well drilled in that in the medical school.

"Again, the character of the interne is not of a higher type than the interne of years ago. One must remember that it costs a lot of money to become a doctor, and many of the men who might become good doctors are prevented from doing so on account of the cost of the education which they must have in order to enter a medical school. For instance, a small smattering of French and Spanish is required, or may be required, and it is very apt to be forgotten when it is picked up.

"In the old days it was a case of the survival of the fittest. At present it is just like breeding a horse, and you must use horse sense. You take a man who writes about the races. You have a man who will tell you of the value of a horse. What he has in mind is the race horse. It isn't the race horse that does the work: it is the ordinary horse. So it is in medicine.

"It is a problem, gentlemen. You must remember that recently at the Kings County Medical Society you heard of a shortage of doctors in the out-lying districts.

"The greatest men we have had in medicine were not college men, and they knew very little about Spanish and less about French."

DR. WILLIAM PEPPER:

"I think I laid myself open to a great deal more criticism than I have received, because I am free to admit that I laid it on a little bit thick.

"I know perfectly well, as do you, that teaching has been going on in hospitals since the first hospital was built, whenever that was. There is no gainsaying that.

"All of this movement is based on the fact that the hospital year is recognized as the important teaching year. It is merely a movement to try to make that teaching, if possible, better than it has been in the past. The teaching of medicine by medical schools has gone on for many hundreds of years, but we are still at work trying to make the medical schools teach better than they have taught heretofore.

"The Council on Medical Education has, as you know, in some way, by this peculiar moral suasion, brought about a tremendous improvement, I believe, in the teaching of medicine, and this movement is merely a movement to stimulate hospitals to also try and do better work.

"One of the speakers called attention to and perhaps criticised the teaching which is done in the medical schools. I have always noticed that the man who taught one class, the senior class for example, always criticised the work of the men who taught the junior students, and so it goes on down. You have probably seen many instances of that. The surgeon says, 'Why, this class doesn't know any anatomy; they don't know anatomy. I asked such-and-such a question and got such-and-such a reply. I don't see what you have been doing all this time with the eight hundred hours which you have at your disposal to teach anatomy. Why, they don't know anything. So it goes, and each group of teachers criticises the group below. The teachers in the hospital have the last say. They criticise the teachers in the under-graduate school, and I suppose the State Boards of Medical Examiners will probably criticise the teaching that you have given the men in the hospitals. They will say, 'These men, didn't what you have been doing with them all these years, and you will be subjected know anything when they came up for their examination.' They will wonder to criticism. And there is no mistake that the practitioners who meet their younger confreres in consultation frequently say, 'What in the world did the State Board mean by ever letting that man have the right to practice medicine?' and so it goes. So that now that you are accepted as members of the faculties, I suppose you have the right, and I am sure you will use it, to criticise the undergraduate school.

"Now, it has also been suggested that if you are really members of the faculties, that you should be so recognized. I wouldn't be in the least surprised to see schools give some sort of title to certain men in certain hospitals to which graduates go for interne service. I think it would be a very good scheme. In that way the schools could get inside information about the service the men were getting. They would expect the chief and might call on the professor to report on the instruction going on in his department, and to

also let the school know about the behavior of their graduates in the hospital. The schools which already require a hospital year have practically done that. For example, Dr. Dodson, of Rush, told me that they have one member of the staff in each hospital to which their internes go whose duty it is to send them reports on the work of the men who are waiting for their diploma, which they won't get until they have satisfactorily completed their hospital year, and I suppose that it will be only a short time before the matter of such a movement will be recognized. We have discussed this matter seriously in our graduate school at the University of Pennsylvania. Of course, in a graduate school, particularly in surgery, the great difficulty is to get material on which the student can work. The hospitals in the city are filled with assistants, internes and residents. Teaching hospitals are filled with students and to have an addition group of graduate students who want to assist or who even want to occasionally operate, it becomes a very difficult matter to know how to give them that practical experience, and so we have, for example, considered sending each graduate student off to a hospital outside of the city, scattering them all over the state where a graduate will stay a certain length of time and act as an assistant to some surgeon in that hospital, and we have discussed the title we would give that surgeon who would instruct that graduate student, and they feel if we could start such a scheme that the only proper thing to do would be to make him an associate professor in the graduate school. It is such a suggestion as has been made in connection with the under-graduate school.

"We have heard some discussion about the amount of routine work which will be required of an interne and the possibility of internes being called upon to do routine work and the possibility of internes complaining about not getting enough operating work. I think if you recall those extracts which I read not a single one suggested that the educational value of the hospital year could be improved by reducing the amount of routine work which they had to do. That is rather remarkable because you would have thought that some one of the group would have complained that he didn't have time to be taught because he was busy doing minor routine work. A few of them thought if they could get a chance to assist at operations they could be taught more. I think fewer and fewer of them are now anxious or feel that they should be allowed to operate themselves.

"I was interested the other day in talking to one of our former graduates, Dr. Adson, who is one of the surgical staff out at the Mayo Clinic and who does a good bit of the brain surgery that is done there. On asking him about the amount of actual operating the students in their graduate school (the teaching fellows constitute their graduate school) did in their three-year course, he replied that they did no operating. In their third year they act as first assistant. That is the nearest they came in a three-year course to actually performing operations themselves, yet those men are graduates, have been internes in hospitals and are taking a three-year graduate course in surgery.

"It is becoming known that you cannot allow students, or for that matter, internes to really do very much in a surgical line. I think internes are less insistent upon that point.

"We have also discussed the question of a rotating service, and I might say for the Bureau of Professional Education and Licensure in Pennsylvania that they have insisted upon that fact. They will not give credit for a year spent in a hospital where the service is purely medical or purely surgical, or where it is a special hospital, such as eye, ear, nose, throat and skin—something of that sort. If a man goes to a hospital where he gets a one-sided service they may give him six months' credit or only three months' credit for it, but he has to get the necessary remaining number of months' credit in some hospital where he will get medical, surgical, obstetrical and laboratory services. They insist upon that and I think with a good deal of justice. It has made a good deal of trouble. There are a good many who have objected to the rulings of the Pennsylvania Bureau, but I for one personally think they have taken the proper stand, and they require that one year at least be spent in a rotating service. If a man goes to a two-year hospital he can rotate for one year through the different services and spend the second year on purely surgical, medical or some other specialty."

Medical Book News

BOOK REVIEW SUPPLEMENT TO THE LONG ISLAND MEDICAL JOURNAL

Edited by JAMES M. WINFIELD, M.D.

All communications, books for review, etc., should be addressed to the Editor of this Department, 1313 Bedford Ave., Brooklyn, New York

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APRIL, 1921

4 PAGES

TEXT-BOOK OF THE PRACTICE OF MEDICINE.

A TEXT-BOOK OF THE PRACTICE OF MEDICINE. By James M. Anders, M. D., Ph. D. LL. D. Fourteenth edition, with the assistance of John H. Musser, Jr., B. S., M. D. Phila. & London, W. B. Saunders Company, 1920. 1284 pages. Illustrated. 8vo. Cloth, \$10.00.

In the three years that have elapsed since the last revision of Anders' well known text book, there have been an unusual number of important developments in the field of internal medicine. Many of these are directly attributable to war conditions. The opportunity for the collective study of large numbers of cases has added much to our knowledge of many conditions. Our conception of the variations in the clinical manifestations of normal hearts has been much broadened; the nature and treatment of functional cardiac neurosis has been more clearly appreciated; typhus fever, streptococcic pneumonia and many other infections processes have been intensively investigated. Aside from the pathological pictures developed or studied through the opportunities offered by war conditions, there have been epidemics such as the recent influenza wave, and the smaller but no less interesting epidemic of encephalitis, which have been fruitful fields for the investigator, and despite the war, research has continued in the field of heart and kidney disorders, of metabolic diseases, acute and chronic infections, anaphylaxis, and other important subjects.

These changes have been skilfully woven into the text of Anders' new edition by the author, with the assistance of John H. Musser, Jr. The result is satisfactorily smooth and surprisingly complete. The revisers, however, have apparently maintained sufficient conservatism to avoid such advance positions that they will have to be reversed in the next edition. This is particularly evident in the sections devoted to treatment. As in previous editions, directions for treatment are for the most part, explicit and practical, and the newer

methods, which are still on trial, are described, but are given only the emphasis to which they are as yet entitled.

References are given for all the more recent work cited, a feature which is a great satisfaction to the more advanced student and of decided educational value to the beginner.

The book should be an asset to any medical library.

T. H.

ROENTGEN DIAGNOSIS OF DISEASES OF THE ALIMENTARY CANAL.

THE ROENTGEN DIAGNOSIS OF DISEASES OF THE ALIMENTARY CANAL. By Russell D. Carman, M. D. Second edition, revised. Phila. & London, W. B. Saunders Company, 1920. 676 pages, 626 illustrations. 8vo. Cloth, \$8.50.

Two new chapters appear in the second edition of this work; in the first, dealing with Gastropasm, the author discusses in detail, the various types of spasm, their causes, differentiation and significance. This chapter, like the rest, is well illustrated and is a valuable addition,—well worth the attention of all interested in this field. The second is a chronologic abstract of the work published on Pneumoperitoneal diagnosis, in which the method of insufflation is described and its dangers noted.

The numerous illustrations with protocols, a few of which have not appeared in the original work, the broad discussion of mooted subjects and the sound conclusions of an author of such wide experience in gastro-intestinal Roentgenology are the features of this, as of the first edition. This unreservedly, is the foremost publication dealing with Diseases of the Alimentary Tract from a Roentgen standpoint.

R. A. RENDICH.

TEXT-BOOK OF PATHOLOGY

A TEXT-BOOK OF PATHOLOGY. By William G. MacCallum, M. D. Second Edition, thoroughly revised. Phila. & London, W. B. Saunders Co.,

1920. 1155 pages with 575 original illustrations. 8vo. Cloth, \$10.00.

Although the first edition of this book was published but five years ago, so much has been added to our knowledge of pathology by the war and the great epidemics following it, that the author, in preparing the second edition, has been obliged to add much new matter. This new matter is found chiefly under the headings of shock, acid-base equilibrium, malnutrition and the infectious and parasitic diseases. The general plan of the book has not been changed. In so far as possible, the author endeavors to treat all pathologic processes from an etiologic viewpoint. Dr. MacCallum has maintained the high standard of literary quality and scholarship set by the first edition. As a general text-book on pathology it has few equals. One of the best features is the profusion of beautiful illustrations, many in color.

E. B. SMITH.

TYPES OF MENTAL DEFECTIVES.

TYPES OF MENTAL DEFECTIVES. By Martin W. Barr, M. D., and E. F. Maloney, A. B., Philadelphia, P. Blakiston's Son & Co., 1920. 179 pages, illustrated. 8vo. Cloth, \$3.00.

This book once more attempts to place the whole problem of Mental Deficiency, Epilepsy, and Dementia Precox back to the position for Scientific Investigation which in the last few years by many observers has been supplemented by a set of rules and investigations which were printed and to be followed and the patient labelled accordingly. Among the definitions we find a statement that the Low-Grade Imbecile differs from the Idiot "that the first step in the advance of mental training has been reached * * * not merely improvement." The Middle-Grade Imbecile is classed, "that here is the first step toward human sense not merely animal instinct." The High-Grade these authors describe as the peculiar persons without actual stigmata of degeneration. A chapter on "special types" describes Moral Imbeciles which may be Middle, Low or High Grade; one on Idio-Savants, one on Epilepsy, and another chapter is devoted to Defectives with Dementia Precox. Eighty-eight cases with their pictures are detailed to illustrate the text.

Although many students of this subject for convenience prefer the easier classification there can be no question that this book more nearly fits the description of actual cases as met than any types based upon years of school ability as the Binet-Simon Scale tries to make of paramount importance.

The book is interestingly written, concise and not ultrascientific, making it possible for the fairy to appreciate what is

meant by the terms used in this study. It is a book for pedagogues, psychologists, and physicians; deserving much consideration by all interested in this subject.

SIEGFRIED BLOCK.

PULMONARY TUBERCULOSIS.

PULMONARY TUBERCULOSIS, A HANDBOOK FOR STUDENTS AND PRACTITIONERS. By Edward O. Otis, A. B., M. D. Second Edition, Boston, W. M. Leonard, 1920. 212 pages, illustrated. 8vo. Cloth, \$3.50.

Dr. Otis presents this work too modestly. He calls it a "Handbook for Students and Practitioners." To our mind its importance justifies a weightier designation. It is a compilation of all that is best in current literature on Pulmonary Tuberculosis, covering the entire field of related topics, admirably arranged and condensed. He draws freely upon the contribution of leading contemporary authorities and cements them together with much that is of value of his own. Thus there is presented Bushnell's "Examination of Soldiers for Tuberculosis," Stall's "Essential Points" in physical examination, the "Diagnostic Standards" of the National Tuberculosis Association, a brief account of the "Framingham Health and Tuberculosis Demonstration," "the Diagnostic, Prognostic and Therapeutic Theses" of Lawrason Brown, and much of similar character. The section given to physical diagnosis is most excellent. He properly stresses the significance of rales found persistently in an apex as the most valuable of earliest physical signs. His whole discussion of the subject of rales is among the best yet encountered.

The author apparently somewhat undervalues the use of the Roentgen ray plate and fluoroscope as an aid in diagnosis, devoting but a paragraph to the subject and that of doubtful praise. Of course, it is appreciated that the general practitioner will do much better work by developing and depending almost wholly upon his own diagnostic acumen in making early diagnosis; yet the potentialities for usefulness of the Roentgen ray in aiding diagnosis are so great that we feel it cannot be slighted. To be sure one must be trained in reading plate and screen; but so must one be trained in interpreting every other aid to diagnosis we possess. We truly believe the coming practitioner should and will be well trained in chest plate reading as well as in the art of physical diagnosis.

The book despite the weakness to which we have just referred, is of such exceptional value that one should not fail to have it close at hand. It is not only most informative, but also highly readable. It will be widely read and give much satisfaction.

FOSTER MURRAY.

MANUAL OF PRACTICAL ANATOMY.

A MANUAL OF PRACTICAL ANATOMY. A Guide to the Dissection of the Human Body. By Thomas Walmsley, Professor of Anatomy in the Queen's University of Belfast. In Three Parts. Part I, The Upper and Lower Limbs. London & New York, Longmans, Green & Co., 1920. 176 pages, illustrated. 8vo. Cloth, \$3.00.

Professor Walmsley has put forth a dissecting manual for the use of the student that is to the point. His order of procedure is correct and the parts to be found are well explained. The object of this book is to make the student use his own mind and eyes as to what he finds and their relations to one another. The instructions to color the parts as found on the plain schematic figures is well taken and will tend to help fix the parts in the mind. Throughout his work one is impressed with the effort to train the hand, eye and mind as a working force to the regular study of the systematic anatomy.

NORMAN PHILIP GEIS.

PRIESTLEY IN AMERICA.

PRIESTLEY IN AMERICA 1794-1804. By Edgar F. Smith. Phila., P. Blakiston's Son & Co., 1920. 173 pages. 12mo. Cloth, \$1.50.

This little book of 173 pages is a collection of data concerning the work of the Rev. Doctor Joseph Priestley, the discoverer of oxygen, while in exile in America from 1794 to the time of his death, February 6th, 1804.

It is of greatest interest to students of the history of chemistry. Priestley was a strenuous advocate of the phlogiston theory even after that theory was generally abandoned by most other chemists. He not only discovered oxygen but hydrogen, carbon dioxide, carbon monoxide and the composition of air.

His exile from England was occasioned by his political and religious writings which made his life a stormy one both in England and America.

The book is interesting, historically, and well worth reading.

E. H. B.

PRACTICAL MEDICINE SERIES, 1920

PRACTICAL MEDICINE SERIES. Comprising eight Volumes on the Year's Progress in Medicine and Surgery. Under the General Editorial Charge of Charles L. Mix, A. M., M. D. Series 120. Volume 3. The Eye, Ear, Nose and Throat, Edited by Casey A. Wood, C. M., M. D., C. L., Albert H. Andrews, M. D., George H. Shambaugh, M. D. Chicago, Year Book Publishers, 1920. 382 pages, illustrated. 12mo. Cloth \$1.75. Price of Series of eight volumes, \$12.00.

The prefatory note of this useful little volume devotes itself to the medical and surgical history of American participation in the world war. Nearly two-thirds of

the remaining pages are taken up with the diseases of the eye. Then follow the sections devoted to the ear, nose and throat, the ear receiving the greater part of the attention in this department. Among these articles are several really important contributions to otology, gleaned from the current literature of the subject. Quite a number of good illustrations adorn the book, one in colors. Altogether it is a very clever and successful example of co-operative book-making.

PRACTICAL MEDICINE SERIES, 1920

SERIES 1920. VOLUME 4, PEDIATRICS. Edited by Isaac Abt, M. D., with the collaboration of A. Levinson, M. D.; Orthopedic Surgery, Edited by Edwin W. Ryerson, M. D., with the collaboration of Robert O. Ritter, M. D. Chicago, Year Book Publishers, 1920. 256 pages, illustrated. 12mo. Cloth, \$1.75. Price of series of eight volumes, \$12.00.

While including both pediatrics and orthopedics, the greater part of this book is devoted to the former subject. The editor of the pediatric section is Dr. I. A. Abt of Chicago while the orthopedic section is edited by Dr. Edwin W. Ryerson of the same city.

This series of year books is published in Chicago and embraces all departments of medicine and surgery, giving in a thoroughly condensed form the main happenings and writings of the year.

Such publications have become of late so valuable to the busy clinician and general practitioner, that one wonders what we did without them formerly.

The size, binding, arrangement and type are all in conformity with other issues, and the scope and value of the work the same as in past years.

W. H. DONNELLY.

BASAL METABOLIC RATE DETERMINATIONS.

LABORATORY MANUAL OF THE TECHNIC OF BASAL METABOLIC RATE DETERMINATIONS. By Walter M. Boothby, A. M., M. D., and Irene Sandiford, Ph. D. Philadelphia & London, W. B. Saunders Company, 1920. 117 pages, with 11 Tables and Charts. 8vo. Cloth, \$5.00.

The authors have condensed into a volume of 125 pages a mass of technical data. It is divided into three sections the first of which is a general discussion of direct and indirect calorimetry and the history of its evolution. The second section considers the method of preparing the patient for the test and the various factors that affect the metabolic rate. It describes in detail the gasometer and accessory apparatus, the mask and its adjustment, the gasometer and the Haldane gas apparatus. The third section is devoted to the methods used for calculating the rate of basal metabolism.

materially to simplify the calculation details. The DuBois height weight chart, and tables for the correction of the gas volume to standard temperature and pressure make this appendix a valuable addition.

The work emphasizes the value of methods of precision in the progressive studies of disease.

HENRY M. FEINBLATT.

DISEASES OF THE EAR.

DISEASES OF THE EAR. By Philip D. Kerrison, M. D. Second Edition, revised and enlarged. Phila. & London, J. B. Lippincott Company, 1921 596 pages, 332 illustrations 8vo. Cloth, \$6.50.

Since the appearance of the first edition of this work, seven years ago, otology has made important advances and the author, by adding some entirely new material and rewriting parts in the second edition that has just appeared, brought this work up to date. Some of the changes and additions have been made because of knowledge gained in the world war. Before the war there was very little said in American works on otology on the subject of malingering, because it seldom came to the ear man. During the war, when military duty became necessary, the detection of those who were trying to evade military duty became important. Several new tests are described, and this chapter will prove of value in determining the degree of deafness following accidents in industrial life.

A valuable chapter is one on war deafness; with a bibliography. In it is covered the subject of concussion and psychic deafness, and injuries to the ear from projectiles.

The greatest advance in otology have been made in the pathology, diagnosis and treatment of suppurative diseases of the middle ear and mastoid, and their intracranial complications. Much of this part of the subject has been rewritten, especially the treatment of the soft parts in the mastoid operation, giving the practice now followed by many surgeons, of closing the upper two-thirds or three-fourths of the wound and inserting a gauze drain in the lower angle instead of treating it as an open wound.

The labyrinthine operation and the indications for it; sinus phlebitis and thrombosis; meningitis, and the treatment of meningitis are largely rewritten.

A new chapter has been inserted, giving the Barany pointing tests as used in diagnosing diseases of the cerebellum. It seems unfortunate that the description of the Barany tests as used for determining pointing in cerebellar disease, and nystagmus in vestibular lesions, is not more ex-

haustive and considered under one heading, instead of in separate chapters.

Very little is said of the new subject, neuro-otology, and the use of the Barany tests for determining the presence of intracranial lesions, especially of the brain stem. In this, and the first edition, the author states that much of the value on this subject has been omitted, because of the lack of space.

The articles on the treatment of furunculosis, facial paralysis, and microtia, have been rewritten.

The volume is uniform in size and binding, with the first edition. It contains ten more pages and is a valuable work on otology.

BOOKS RECEIVED.

Books received for review are acknowledged promptly in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases review notices will be promptly published shortly after acknowledgment of receipt has been made in this column.

PRACTICAL PSYCHOLOGY AND PSYCHIATRY. For use in Training-Schools for Attendants and Nurses and in Medical Classes, and as a Ready Reference for the Practitioner. By C. B. Burr, M. D. Fifth Edition, revised and enlarged. Philadelphia, F. A. Davis Company, 1921. 269 pages, illustrated. 12mo. Cloth, \$2.00.

PRACTICAL TUBERCULOSIS: A Book for the General Practitioner and those Interested in Tuberculosis. By Herbert F. Gammons, M. D., St. Louis, C. V. Mosby Company, 1921. 158 pages, illustrated. 12mo. Cloth, \$2.00.

SURGERY; ITS PRINCIPLES AND PRACTICE. By Various Authors. Edited by William Williams Keen, M. D., LL. D. Volume 7. Phila. & London, W. B. Saunders Company, 1921. 855 pages, 359 illustrations, 17 of them in color. 8vo.

DIAGNOSTIC AND THERAPEUTIC TECHNIC. A Manual of Practical Procedures Employed in Diagnosis and Treatment. By Albert S. Morrow, A. B., M. D., F. A. C. S. Third Edition, entirely reset. Phila. & London, W. B. Saunders Company, 1921. 894 pages, with 892 illustrations. 8vo. Cloth, \$8.00.

OPTIMISTIC MEDICINE, OR THE EARLY TREATMENT OF SIMPLE PROBLEMS RATHER THAN THE LATE TREATMENT OF SERIOUS PROBLEMS. By A Former Insurance Man. Philadelphia, F. A. Davis Company, 1921. 318 pages. 8vo. Cloth, \$3.00.

SWISS WATERING PLACES. (New York, Official Information Bureau of Switzerland, 1921). 86 pages, illustrated. 8vo. Paper.

VENEREAL DISEASES, THEIR CLINICAL ASPECT AND TREATMENT. With an Atlas of 106 colour and 21 half-tone illustrations. By J. E. R. McDonagh, F. R. C. S. St. Louis, C. V. Mosby Company, 1920. 419 pages. Royal 8vo. Cloth, \$20.00.

MYSTICISM, FREUDIANISM AND SCIENTIFIC PSYCHOLOGY. By Knight Dunlap, Johns Hopkins University, Baltimore. St. Louis, C. V. Mosby Company, 1920. 173 pages. 12mo. Cloth, \$1.50.

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NO. 5

THE FIELD OF USEFULNESS OF THE POLYGRAPH AND ELECTROCARDIOGRAPH IN THE DIAGNOSIS OF CARDIAC DISEASE.*

Harold E. B. Pardee, M. D.

New York City.

MR. PRESIDENT and Gentlemen of the Brooklyn Cardiological Society, I feel that it is a very great honor to be asked to address you tonight. I have enjoyed listening to the words of your president, and I have formed the conclusion after hearing him that your society is "on the job" so to speak. Indeed my subject tonight was the suggestion of your president. It is a rather technical one, but I have tried to do away with as much of the technical aspect as possible in order to make this talk of interest to you, who wish only to know what help a physician may expect to obtain by these methods.

The electrocardiograph and the polygraph are very different instruments,—one comparatively old, now, and the other comparatively new, and the information which they give us is quite as different as the instruments.

The function of the polygraph is to record the pressure changes within the right auricle, that is, records the venous pulse in the lower part of the neck, this pulse being transmitted upward from the auricular cavity. The manner of recording these waves need not be described, but when we have recorded them it is necessary that their causes be identified and translated into terms of heart function.

The upper line of Figure 1 is a venous pulse curve from the jugular vein and the lower line is an arterial pulse curve from the carotid artery. All venous pulse curves differ in the size and shape of the waves, though not in the number, and there is nothing about any one wave to enable us to distinguish it from any other. It is necessary therefore in order to find out the cause of each of the waves to take a synchronous record of the heart action, as shown by a record of either the apex beat or of the radial or carotid pulse. Each record then shows these two lines, one the venous pulse and the other the arterial pulse or apex beat. By noticing what occurs in the ven-

* Read before the Brooklyn Cardiological Society, January 31, 1921.

ous pulse at the same time as the arterial pulse, we can find the wave marked *c* which is due to the systolic action of the ventricle upon the intraauricular pressure. We know then that

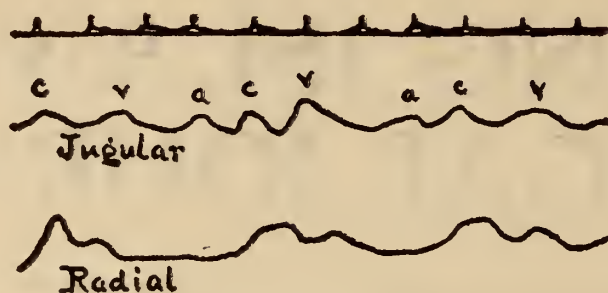


Figure 1.

the wave marked *a* which precedes the ventricle is due to the contraction of the auricle, and that the wave marked *v* is due to the rise in intraauricular pressure which occurs at the end of ventricular systole because of the flow of blood into the auricle during that time.

This is the way we must proceed to work out a polygram and I think you can see how difficult it may sometimes be to determine whether a given wave is *a* or *v*, especially if the heart rate is rapid so that these waves fall close together or upon each other. It can be done however, by careful measurement, and then, when we have taken a record and decided upon the origin of each wave, we are in a position to make a diagnosis of the rhythm of the heart, or as it has been called, the mechanism of the heart beat. We can say whether the auricles are regular or irregular, whether some auricular beats come prematurely (auricular extrasystoles), whether the rate is gradually changing from fast to slow and back (sinus arrhythmis), whether the time between the contraction of the auricles and the ventricles is normal or is delayed (partial heart block), whether the ventricles beat prematurely (ventricular extrasystoles), or at a regular rate without any relation to the auricular contractions (complete heart block), or whether the auricular contraction fails to occur and the ventricles beat irregularly because of auricular fibrillation.

There is some additional information to be obtained from the form of the arterial pulse curve. It is sometimes very sharply peaked quickly up and quickly down, and in such a patient the pulse can usually be felt to have the "waterhammer" or collapsing quality that we know to be characteristic of aortic regurgitation or of a very relaxed arterial system. There is another characteristic pulse wave that we find, which is called anacrotic. It rises to a rounded or broad peak, sometimes double topped. It is characteristic of a strongly laboring ventricle, and occurs when there is a high blood pressure or when there is aortic stenosis.

Let us turn now to the electrocardiogram. It is always difficult for a person seeing the electrocardiographic record for the first time to comprehend what it represents, for it is not caused by any of the things about the heart of which we are ordinarily accustomed to think. We think of the arterial pulse, of the pressure inside of the ventricles, of the valves, the cardiac nerves and the coronary arteries, but the electrocardiogram is concerned with none of these. It is a record of the electricity which is produced by the heart muscle when it con-

tracts. All tissues appear to produce a small amount of electricity when they become physiologically active, and this is the electricity of the heart. It is led off from the surface of the body, to which it readily flows through the tissues, and the wires through which it is led off are brought to the galvanometer which measures and records the variations of the current.

The record, the electrocardiogram, must always be taken by the three standard leads. The reason for this is that no matter to what part of the body you attach two wires, there will always be obtained some part of the heart's current, but this part will be somewhat different with each different application, and there is no one application which will give a complete idea of the current within the heart itself. Three standard *leads* have therefore been adopted, and these are always used for clinical purposes, not only one, but all three of them, so that by considering the features of each one of them we can obtain a complete idea of the heart's current.

The leads are "Lead 1" which is from the two arms and can be seen to be horizontal in relation to the frontal aspect of the chest, "Lead 2" which is a diagonal lead from right arm and left leg and "Lead 3" which is from the left arm and left leg, in general a left lateral relation to the chest. All three leads are needed to obtain a proper idea of the electricity of the heart, for each lead approaches it from a different angle. One lead obviously could not give us every feature of this current.

When we take the record of the heart's electricity by these three leads we find, then, that each one gives a slightly different curve.

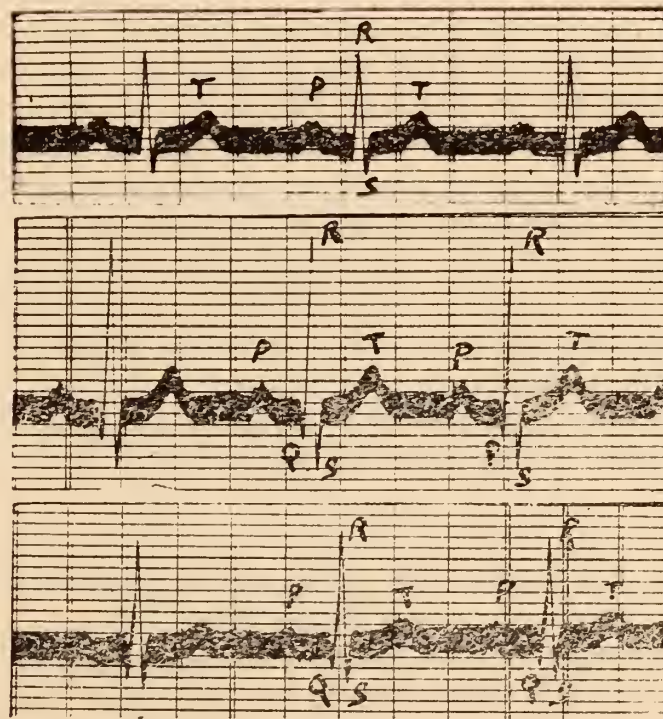


Figure 2.

This can be seen in Figure 2 which is a record from a normal heart and shows lead 1 above, lead 2 in the center and lead 3 below. Still, though each lead gives a slightly different curve they all have a general similarity to one another, which is of course due to the fact that they are only different aspects of the same process within the heart. In all three leads the heart beat is divided into two parts just

as was found in the polygraph record, the first due to the auricular contraction and the second due to the contraction of the ventricles. The waves marked P are of auricular origin, the sharply pointed peaks marked Q R and S are of ventricular origin as are also the waves marked T. The diastolic pause of the heart is responsible for the level line between the T waves and the P waves which follow. The ventricular contractions are always represented by an initial quickly moving, sharp pointed peak or group of peaks, the Q R S group and by a later more slowly developing wave, the T wave while the auricular contractions are only represented by one wave P of a rather characteristic form.

From the time relations of the auricular waves and the ventricular waves we can learn the same things about the mechanism of the heart beat that are shown by the polygram: whether the auricles are regular or irregular or are showing fibrillary contraction, whether the ventricles beat prematurely or are delayed in following the auricles. Moreover, it is easier to read these records than those of the polygraph, because the auricular and ventricular waves have a characteristic form which is so easily recognized that we do not have to depend upon a synchronous arterial measurement for their identification. The auricular waves are always recognizably like the P waves of the Figure, and the ventricular waves are so typical that they can scarcely be misinterpreted.

Besides this information as to cardiac rhythm and heart block, the electrocardiogram is capable of telling a great deal about the structural and functional condition of the ventricular muscle which *cannot be determined in any other way*. It is in fact our only physical sign of the part which each ventricle takes in cardiac hypertrophy, and of the character of the function of the ventricular muscle, whether this is normal or is affected by disease. When an abnormal electrocardiogram is constantly obtained it is a definite sign of myocardial disease.

The first variation in the electrocardiogram that I shall consider is that which results from a hypertrophy of one or the other ventricle. The change in the record will only occur if the two ventricles are not hypertrophied to the same relative extent. The left ventricle normally is larger than the right in the proportion of about 2 : 1, perhaps 80 grammes and 40 grammes respectively for the left and right ventricular muscle. If the left ventricle hypertrophied so that it weighed 150 grammes and the right ventricle hypertrophied at the same time so as to weigh 75 grammes the relation of the ventricular masses would still be normal. The electrocardiogram would not show the sign of ventricular predominance but might be a normal electrocardiogram like that of Figure 2. The record then, does not tell you anything about hypertrophy of the heart, you must find this out in some other way, but it does tell you whether one ventricle has hypertrophied more than the other so that its electrical effect predominates in the curve.

The distinction between hypertrophy of the heart and ventricular predominance is perhaps difficult to grasp at first but you can see from the above that it is a proper and important distinction. Predominance shows itself only in the QRS group, the T wave not seeming to be affected. Predominance of the right ventricle causes the S wave to be the largest of the group in lead 1 while R is relatively large in leads 2 and 3 and is always the largest of the group in lead 3. Pre-

dominance of the left ventricle causes the S wave to be the largest of the group in lead 3 while R is relatively large in leads 2 and 1 and is always largest in lead 1. Figure 3 A shows right ventricular pre-

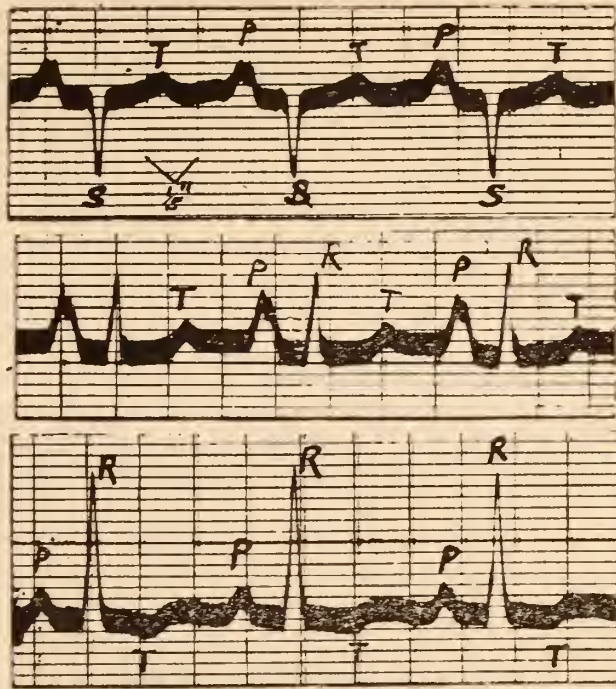


Figure 3-a

dominance and Figure 3 B shows left ventricular predominance. When this abnormality of the electrocardiogram is found, you must realize that it does not indicate a disease process in the ventricular

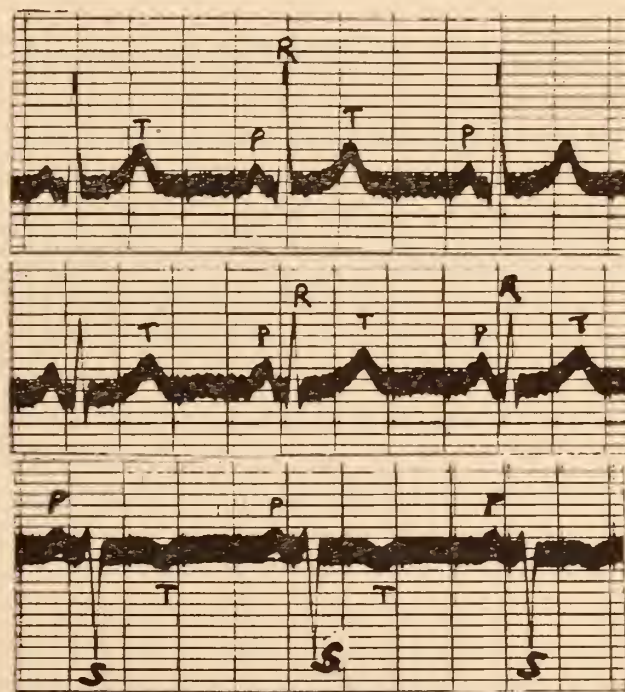


Figure 3-b

muscle, although it may be caused by one. Remember that a ventricular predominance may occur with a quite healthy heart muscle, as a result of congenital cardiac abnormality or of high arterial pressure.

The simplest disturbance of the electrocardiogram caused by disease is a change in the T wave. You will see that in Figures 2 and 3 the T wave of each record is directed upward in all three leads or at least in leads 1 and 2. A great many records of normal hearts have been taken and none of them have been reported to show a downward T wave in either lead 1 or lead 2, though about a third of such records show a downward T wave in lead 3. Any record which shows a T wave turned downward in either lead 1, or lead 2, or both, is to be considered an abnormal record: Figure 4 is a record of an abnormal heart which shows the T wave turned downward in leads 1 and 2 and also in lead 3 through this latter has no abnormal significance.

Some abnormal hearts will give a record with the T wave turned downward only in lead 1, which in others it is downward in all three

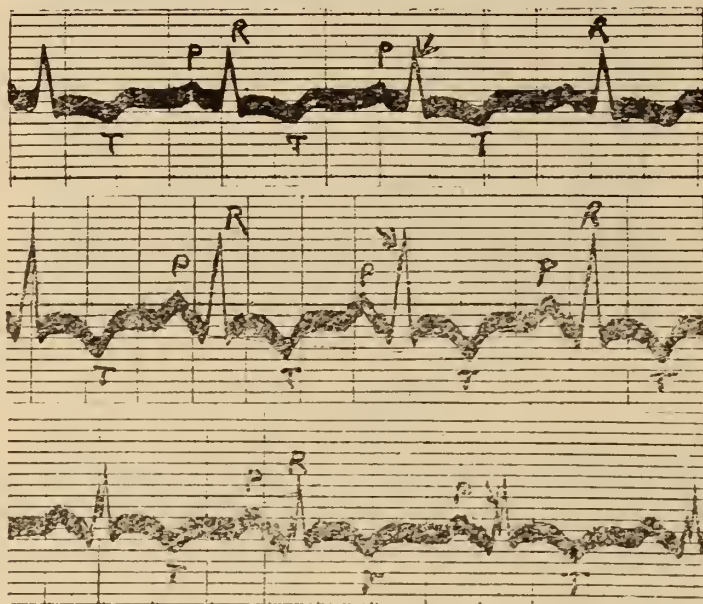


Figure 4.

leads as in Figure 4. This does not mean a worse condition of the heart than if the abnormality were confined to only one lead, but merely that the abnormality of the muscle is different.

The occurrence of an abnormal T wave may be the result either of a muscle disease or of a muscle toxæmia or poisoning. If it has the latter origin it will pass off when the intoxication is over. I have seen this return to normal as the patient recovered from uræmic poisoning, and also during recovery from the acute febrile stage of trichinial infection. It is often abnormal in myxedema, and thyroid administration will sometimes change it to normal again. The T wave does not seem to be affected this way by the poisons of pneumonia or of typhoid fever, for a normal T wave is the rule in patients with these diseases.

In a given case, then, the only way that we can tell whether an abnormal T wave is due to structural disease is to be certain that the patient is not suffering from an intoxication which is able to cause this change. It is very important to remember that both digitalis and morphine are able to produce this same change in the T wave, as can also a few other less frequently used drugs. The digitalis effect may persist in some measure for from 10 to 21 days after the drug has been discontinued, and the morphine effect for from 6 to 12 hours. There is sometimes a recognizable difference in the abnormality of T which

is caused by disease and by digitalis, but this difference could only be recognized by one who was very familiar with these records and not always with certainty by such a one. We cannot then make a diagnosis of myocardial disease from an abnormal T wave while the patient is under the influence of either of these drugs.

Patients with cardiac disease show an abnormal T wave very commonly. If we take repeated records of these patients we shall find this abnormality is a persistent one; it persists and does not change, and such an abnormal T wave may be taken as an indication of myocardial disease.

Not only is the direction of the T wave important, but also its height, this being measured in whichever of the leads the excursion of T is largest. When the height of T in its largest lead is less than 1 mm. it is abnormally small and when it is less than 2 mm. it is suspiciously so. A diminution in the size of the T wave may be caused by whatever will lead to a weakening of the cardiac contraction. It is found most often in patients with very rapid hearts, and in those whom we know to have a chronic fibrotic condition of the heart. Most aged people show very small T waves and we know that as a class they have a considerable amount of fibrosis of the muscle. It may be taken then to indicate either an exhaustion of the muscle or a chronic change of this character.

The most interesting abnormality of the QRS group is that notches are found upon the peaks of the waves or upon the upward or downward limbs. Sometimes a thickening or slurring of the upward or downward line will be observed, as in Figure 4, lead 2, and this has the same significance and origin as a notch. It may be considered as a notch pulled out lengthwise. Figure 4 shows notching or slurring of the QRS group in all three leads at the points indicated by the arrows.

Notching or slurring of the QRS group may be found in one lead of many normal records, but never in more than one lead. If this abnormality occurs in two or more leads of a record, then this record must be said to be abnormal.

In order to make clear to you how notching of the QRS group may arise, I must describe briefly the Purkinje system and show you the importance of its function. It will be realized that the ventricles, at least compared to the auricles, are a large and complicated mass of muscle. In order that this large mass may enter into contraction at approximately the same instant, there is developed a system which runs over the entire inner surface of both ventricles, and which conducts the contraction stimulus from the auriculo-ventricular bundle of Hiss to practically every point of the inner surface of both ventricles within about .04 or .05 second. It is a distributing system for the stimulus which the auricles send along the A-V bundle, and you can well imagine that when this distributing system is affected by disease the distribution will not be normal, and the ventricular muscle will not enter into contraction normally. This results in an abnormal electrical production during the time when the contraction is spreading over the ventricular muscle mass and this causes notching of the QRS group if the spreading is sufficiently abnormal. When a large area of muscle does not receive its contraction stimulus at the proper time, it is much as if this area were so diseased that it did not contract at all. Though it does contract slightly later, the lack of its electrical

effect at the proper time and its presence at a different time is the probable cause of the notching.

Notching, then, is a sign of disease which has affected the heart in either one of two ways. Either (1) a large area of the ventricular muscle has been thrown out of function by becoming involved in a disease process or by having its blood supply decreased below that necessary to maintain vitality, or (2) a large area of muscle which may be relatively normal, fails to receive its stimulus to contract at the normal time, because of a lesion of many fibres of the Purkinje system, or of some of the larger main branches.

Sometimes the disturbance of the Purkinje system results not only in notching, but also in an increase in the duration of the QRS group. Figure 4 shows this abnormality for the duration of the QRS group is .12 second. The contraction has taken .12 second in this case, instead of the .10 second which is the maximum normal for it to complete its spread throughout the ventricular muscle.

If one of the two main branches of the auriculo-ventricular bundle is interrupted by disease, the one to the Purkinje system of the right or of the left ventricle, then the electrocardiogram takes on a very characteristic and typical form of which the important features are (1) very large excursions of both the QRS group and of the T wave (2) notching of the QRS group in two or three leads (3) an increased duration of the QRS group so that it lasts for .14 second or more (4) the T wave is directed opposite to the chief deflection of the QRS group in each lead except perhaps the lead in which the QRS group show its smallest excursions. Curves of this sort are shown in Figure 5, record A being the result of a lesion of the branch to the right ventricle while record B is the result of a lesion of the branch to the left ventricle. These records are seen to be symmetrically opposite to one another if we consider the first and third leads. The change from the normal record is a very marked one, but this is readily understandable because of the fact that one whole ventricle is a little late in receiving its stimulus to contract.

Hearts which give records with notching of the QRS group, or an increased duration of QRS, or the more marked disturbances that follow a lesion of the right or left branch of the A-V bundle are hearts that are diffusely affected by disease. Patients having such hearts are rarely able to undertake anything approaching a normal amount of exertion, and their condition does not tend to return to a normal one even after considerable treatment. The heart muscle disease is a serious handicap which cannot be more than relatively overcome.

There is one other rather typical abnormal electrocardiogram which will be found in a fair number of patients, and this is the result of an occlusion of one of the branches of the coronary arteries, or of a marked chronic narrowing. It is characterized by a peculiar sharply downward curve of the T wave in lead 3 or more rarely in lead 1. Figure 6 illustrates this abnormality, and shows also a slight left ventricular predominance as is very commonly found in these records. Notching of the QRS group is also a common finding and is seen in this record. The T wave is seen to start from slightly above or below the base line of the record and immediately to hook sharply downward and then back making a sharp pointed downwardly directed wave in lead 3. Lead 2 must also show a downward T wave as in the

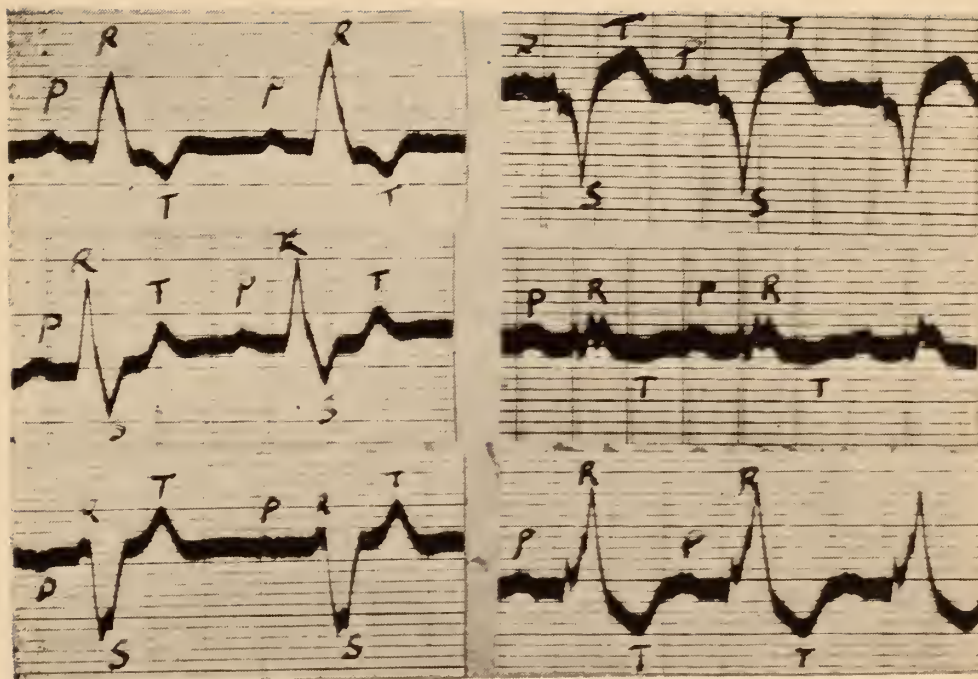


Figure 5.



Figure 6.

figure, to make the record a typical one, but need not show the typical hooking downward.

This typical T wave has been obtained from many patients who were much crippled by precordial pain on exertion, but I have seen it from some patients who were but little affected. I believe that it will be found in one-third of all patients who have coronary artery disease of moderate or marked degree. It is an important finding because it indicates that a considerable area of the muscle is receiving an insufficient blood supply, so that there is practically a scar in the muscle, and that the arteries are so narrowed that a thrombosis may readily occur if it has not already done so.

Finally, the QRS group can tell us something by the size of the largest of its waves this being measured in whichever of the three leads shows the largest excursion. This will be between 7 and 16 mm. in normal hearts. In hypertrophied hearts it will be found to be higher than this, perhaps as much as 20 or 25 mm. at times, and large values are also found with hyperthyroidism. In poorly nourished hearts you will find the size of the largest wave of the QRS group to be small, sometimes even as small as 2 or 3 mm. If a hypertrophied heart should be in a poor state of nutrition the otherwise large value of the QRS group might be reduced by this to within the normal limits mentioned or even smaller. During convalescence from an acute illness we practically always see an increase in the size of the largest wave of the QRS group.

Let us consider now in what sort of patients we shall expect to find an abnormal electrocardiogram. Of *patients with valvular disease of the heart*, about three-quarters will show the evidence of either right or left ventricular predominance while about one-sixth or less, will show in addition to this, some of the signs of ventricular myocardial disease which have been pointed out. Of *patients with high blood pressure* (over 200 mm.) and much enlarged hearts that do not show any sign of cardiac failure, practically all without exception will show the sign of left ventricular predominance, and only about one-tenth or less will show one of the signs of ventricular muscle disease in addition. Of those showing signs of cardiac failure, about 20% will show abnormal records. Of patients who have symptoms of *cardiac insufficiency without high blood pressure or valvular disease*, either with large or with small hearts, a very large number will show an abnormal electrocardiogram, I should say well over 75% or 80%.

An abnormal electrocardiogram such as has been described is a definite indication of disease of the ventricular muscle when proper allowance is made for conditions other than disease which may cause some of these changes. It seems unnecessary to point out that myocardial disease is a great handicap to the functional ability of the heart, so that if a patient with valvular disease or with high blood pressure has an abnormal record it places him immediately in a class of difficult cases which will only improve with the most careful treatment if at all. Even if a patient has a normal electrocardiogram he may yet do badly because of the extent of a leak or the narrowing of a valve, but his outlook is certainly much better than if the record were abnormal.

There are a few exceptional patients who show an abnormal electrocardiogram and yet are able to carry on an only moderately limited physical activity. These do not prove that the muscle changes are

innocuous, any more than the finding of a marked valvular disease with but slight decrease in the patient's ability to exercise proves the same for valve lesions. It is simply that the handicap of the valve lesion in the one case and the muscle disease in the other does not exceed that margin of safety which is inherent in every heart, and which allows it to carry on the circulation under conditions of exceptional demand. In all but these rare cases, then, the muscle change which gives rise to an abnormality of the electrocardiogram is of sufficient extent and severity to exceed this margin of safety, so that the patient is evidently overtaxed by slight exertion. I believe that a myocarditis that will not produce an abnormality in the record will not be sufficiently serious to reduce the patient's cardiac reserve to an important degree.

Remember in summing up a case that the electrocardiogram is only one physical sign, and that it is concerned with only one of the causes of cardiac failure, the muscle. There are many patients with valvular disease with signs of cardiac failure and yet who show a normal electrocardiogram except for ventricular predominance. It is easy to say and even likely, that these patients do not have perfectly normal heart muscles, but since they have not enough disease to affect the electrocardiogram I would feel that the muscle is not the predominant cause of the cardiac failure. It is a very important thing to know whether a patient has a normal or an abnormal record, just as important as to know whether or not he has valvular disease.

In closing I must mention the field of usefulness of these two methods of examining the heart action. The usefulness of the polygraph in the diagnosis of cardiac arrhythmia is very great, and is enhanced by its portability, by the fact that it can be brought to the bed of a patient. Except in the diagnosis of prolonged A-V conduction, and partial or complete heart block, it is unable to give us any information about the condition of the heart muscle. The value of the electrocardiograph is greatest when it makes a diagnosis of the presence or absence of disease of the ventricular muscle, and besides this it can answer every question as to arrhythmia which can be settled by the polygraph. Its drawback is the obvious one of lack of portability, and yet this is not so great as it would appear to be on first thought, for it is a rare cardiac patient who is not at some time able to leave his house to go to the instrument.

A physician who is familiar with the subject can make a correct diagnosis of cardiac irregularities in about 85% of cases without the aid of instruments. If he does not use instruments to check up his diagnosis he will probably think that he is correct in about 95% of instances. No physician, however, can make a diagnosis of the state of the ventricular muscle with a degree of accuracy better than perhaps 20%, so that for this phase of our patient's condition we are almost wholly dependent upon the electrocardiogram.

THE EFFECTS OF THE VAGUS NERVE ON THE HEART BEAT.*

William W. Laing, M. D.

Brooklyn, New York.

THE present paper does not profess to offer any new or original observations, but to bring together within the compass of a single article, the various effects of the vagus nerve on the heart beat.

The vagus or tenth cranial nerve is the great inhibitory of the heart, whose primary effect is to slow the heart's rate. This observation was first made by the brothers Weber in 1845, and was the first discovery of inhibitory nerve fibres. The vagus is one of the most widely distributed of all the nerves in the body, giving branches to the larynx, lungs and abdominal viscera, as well as to the heart. The following brief description of the anatomy and distribution of the vagus is quoted from T. Stuart Hart: "The vagus arises from nuclei lying in the medulla in the floor of the fourth ventricle, passes out of the medulla in a groove between the restiform and olivary body, escapes from the skull through the jugular foramen, and passes down the neck in the sheath of the carotid artery. About the level of the lower border of the thyroid cartilage, the nerve is joined by branches of the sympathetic; at the level of the first rib the cardiac branches are given off; on the right side they follow the sheath of the innominate artery, and on the left pass in front of the aorta, thus reaching the cardiac plexus." The principal effects of vagus stimulation are (1) slowing of both auricles and ventricles; (2) depression of conductivity, and (3) probably diminished contractibility. The cardiac accelerators are derived from the sympathetic system, and the rate of the heart is determined, under most circumstances, by the balance between the effects of the inhibitors and accelerators. In a general way it may be said that the right vagus is distributed chiefly to the sino-auricular node and the auricles, the left chiefly to the auricles, auriculo-ventricular node and bundle, and the ventricles, though probably all parts of the heart receive some fibres from both nerves. It is owing to this difference in the distribution of the two nerves, that the effects of stimulation of the nerves of opposite sides of the body are not precisely the same. Thus, stimulation of the right nerve causes slowing, and if strong enough, standstill of the whole heart, while stimulation of the left nerve has a stronger tendency to produce heart-block, through its action on the conduction tissues. As is well known, the vagi may be stimulated in man by firm pressure in the neck where they run in the carotid sheathes, the compression being applied in the middle or lower third of the neck. Simultaneous pressure on both nerves should not be attempted, as serious consequences may ensue. Effects similar to vagus compression may also be produced by firm pressure on the closed eyelids, and it is stated that compression of the right and left eyeballs produces effects similar to compression of the

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right and left nerves in the neck. Reflex stimulation of the vagus occurs under a great variety of conditions; e. g., inspiration, and swallowing. The slow pulse so often seen in gastric disease is probably a reflex vagus effect.

Some forms of cardiac irregularity are directly due to the action of the vagus center of the heart. These are the various forms classed under the general head of sinus irregularities, of which the most usual is the "youthful type" of Mackenzie, occurring in a large proportion of healthy children and young adults, in which each expiration is accompanied by a slowing of the pulse; this occurs during natural quiet breathing. A distinct slowing of the pulse occurs in nearly all persons on forced inspiration, and may be more marked when the breath is held. Under these circumstances, the heart gradually resumes its normal rate. Phasic irregularity is a periodic gradual waxing and waning of the rate of the heart independent of respiration. Prolonged slow action of the heart is often due to vagus action, though there are other causes for this as well; e. g., sino-auricular block, and lesions of the A-V bundle. Lewis says that the slow heart of jaundice is vagal, while that of typhoid fever is not, since it is not quickened by atropine. Standstill of the whole heart is often due to vagal conditions, and is one of the frequent causes of fainting attacks, though not all fainting attacks are to be attributed to vagus action.

Physiological action of the vagus on the normal heart. So far as known, the action of the cardiac nerves is entirely on the fibres specialized for stimulus production and conduction; that is to say, on the sino-auricular and auriculo-ventricular nodes, the bundle of His, with its branches, and the Purkinje fibres. Rhythmic stimulus production at a more rapid rate than normally occurs elsewhere in the heart is an inherent function of the s-a node. But this function is not wholly independent of control; it is subject to nervous influences, and the vagus impulses tend to slow it, the accelerators to quicken it. The actual rate of the heart is due to the balance between these two influences. Of the two vagi, the right is far the more powerful in its control of impulse formation in the s-a node. When exceptionally the pace maker is dislocated from the s-a node to the a-v node, it is found that this is also subject to the same nervous control, but in this case, the influence of the two vagi is more nearly equal, the left nerve, however, slightly predominating. The rapidity with which impulses travel through the conduction system is also very largely controlled by the vagi, and stimulation of the vagi, both in normal and pathological hearts, may delay or altogether prevent the passage of impulses. Both vagi are concerned in governing the passage of impulses, the left again slightly more than the right. It is to be noted that it is not only the main bundle that is subject to nerve control but its two main branches and the smaller divisions as well.

The vagus also contains afferent fibres and conveys upward impulses at each systole, but these do not commonly rise into the realm of consciousness. The afferent fibres are known as the depressor fibres, and stimulation of them results in a reflex slowing of the heart rate.

Slow action of the whole heart is often caused by vagus stimulation; and some normal individuals have a naturally slow heart from increased vagal tone. Cerebral compression by tumor, abscess, intra-

cranial hemorrhage, or meningitis, are frequent causes of vagus stimulation with resultant slow pulse. Gastric irritation is another common cause. Ventricular rates below 40 are not known to occur without heart-block. Wenckebach states that no bradycardia is of vagal origin in which the heart beats regularly. Stimulation of the vagus reduces the refractory period of the heart muscle.

Extra-systoles. It is denied by Lewis that stimulation of the vagus can produce extra-systoles in the normal heart. In hearts poisoned by certain drugs, such as barium chloride and chloroform, however, extra-systoles can be so produced. It is well known that one of the symptoms of digitalis poisoning is the occurrence of extra-systoles, and this may go to such a point that every alternate beat is an extra-systole, when we have the well known coupled beats not infrequently seen when digitalis is pushed to its physiological limit. Whether these are due to the action of the vagus on the heart poisoned by digitalis, or whether they are due to the direct action of the drug on the heart muscle, I do not know.

Paroxysmal Tachycardia. This disorder is due to the generation of heterogenic impulses in a new center, and is therefore not under vagus control. Stimulation of the vagus has no effect on the rate, but may result in terminating the paroxysm, and restoring the normal rhythm. Hence, pressure on the vagus in the neck, vomiting, swallowing, deep breathing, are methods which are sometimes effective in bringing a paroxysm to an end. All of these means stimulate the vagus.

Auricular Flutter. This is essentially an auricular tachycardia of abnormally rapid rate, 200 or over per minute. The very fast rate at which the bundle is called upon to function results in a diminution of its conductivity, so that a degree of block arises, and the ventricle responds only to every 2nd, 3rd, or 4th beat, or may respond at irregular intervals, in which case the pulse may strongly suggest auricular fibrillation with a very rapid ventricular rate. Rarely the ventricle may respond to every auricular contraction for short periods. The fact that the conductivity of the bundle is disturbed in this condition, renders it susceptible to vagus influences. Thus, compression of the vagus in the neck produces slowing of the ventricle by increasing the degree of block, while the auricular rate remains unaffected; both nerves produce equal effects. Digitalis in full doses lowers the ventricular rate, and when pushed, in favorable cases, converts the flutter into fibrillation. If the drug is now stopped, the heart will often return to its normal rhythm. Even if the normal rhythm is not restored, this result is not to be looked on as a wholly unfavorable one, since the ventricular rate may then be controlled by treatment like any other case of auricular fibrillation.

Auricular Fibrillation, in which the auricles remain permanently in the position of diastole, with wholly incoordinate quivering contractions of the individual muscle fibres, while the ventricles respond by contractions of varying force at irregular intervals, shows very marked vagus effects. Compression of the vagi in the neck produces its usual effect in slowing the ventricles by increasing the degree of block. Digitalis is generally conceded to produce its beneficial effects in this disorder in this manner and in many cases the ventricular rate is almost absolutely under the control of the physician. By carefully adjusting the dose, the number of ventricular contractions may be often

regulated within a very few beats per minute. But this effect is not wholly due to stimulation of the vagus center. If it were, full doses of atropine would restore the rate to that which prevailed before the atropine was administered. This is usually not the case; the rate after atropinisation is less than that before the digitalis was given. It is difficult to escape the conclusion that the drug acts directly on the tissues of the bundle, as well as on the nerve centers.

There seems to be an impression among many practitioners that in this disorder digitalis may be pushed fearlessly, and it has been stated that it is not possible to give enough to do harm, because the patient will vomit before the stage of danger is reached. This is not always true. In a case of auricular fibrillation recently seen by the writer in hospital practise, digitalis had been pushed by an outside practitioner, without the production of vomiting, but with the result that the ventricular rate had been reduced to about 40 per minute; complete a-v block was not present as the ventricular rate was markedly irregular, and quite variable from time to time; polygraphic tracings showed the characteristics of auricular fibrillation. There was a marked psychoneurosis with mental depression and melancholia, and for some days the fixed delusion that she was dying. At no time was she in serious danger, and as a matter of fact recovered from her mental condition as the effects of the drug wore off. Another case under the writer's care, also of rheumatic mitral disease, with fibrillation, is subject every few weeks to attacks of epileptiform convulsions, usually coming on during sleep. The patient is a man sixty years old, and has never previously been the subject of convulsions. His heart has never been slowed excessively. The convulsions are brought about by standstill of the ventricles. The first returning contractions are infrequent, feeble, and irregular in time. Between the convulsions the rate returns to what it was before the first of the series, and has been noted at 54, and on other occasions between 80 and 90 per minute he seems about as liable to attacks with one rate as with the other, still, one cannot help feeling that digitalis block may have had much to do with bringing about the standstill of the ventricles. The first convulsion of the series almost always comes on during his first sleep, and it seems probable that the increase of vagal tone during sleep temporarily increases this to the point of causing standstill of the ventricles. These attacks usually come on following an evening of prolonged and close mental work over his books.

Stimulation of the vagus in the neck greatly accelerates the movement in the fibrillating auricles.

Heart-block. Stimulation of the vagus is capable of producing all grades of heart-block, from prolongation of the P-R interval up to and including complete disassociation of auricles and ventricles. It may also produce complete standstill of the whole heart. In this latter case the right vagus is by far the most potent. In the healthy human subject these effects may sometimes be produced by compression of the vagus in the neck. The effect, however, is not prolonged, the heart soon resuming its normal rate. In case of damage to the conduction system, the effects of vagal stimulation are apt to be much greater than in health. They are due to the action of the vagus on the conduction, since they are abolished by atropine. The action, moreover is not alone upon the bundle of His before its division but also upon the divisions of the bundles after branching, since in ex-

ceptional instances, aberrant ventricular complexes are produced.

In established heart-block with complete disassociation of auricles and ventricles, it is usually considered that the ventricles are no longer under vagus control, but beat at a slow regular rate, usually between 30 and 40, due to their own intrinsic rhythmicity. However, T. Stuart Hart reports three cases of complete block, in which atropine greatly increased the rate of both auricles and ventricles, without removing the block; and also two cases of auricular fibrillation with complete block, in which atropine greatly increased the ventricular rate. In one of the former series, the rate before atropine was As 75, Vs 48. Thirty minutes after atropine, 1/50th grain hypodermically, the rate had risen to As 100, Vs 60. If we are right in believing that atropine acts on the heart only by paralyzing vagus action, it is difficult to escape the conclusion that exceptionally the ventricles in complete heart-block may be subject to vagus influences.

While it is true that temporary heart block may be caused by stimulation of the vagus, and by drugs which act chiefly through the vagus, there is no conclusive evidence that persistent clinical block can be so caused. It is known that asphyxia may cause block, but this is not a vagus effect, as it is not removed by atropine.

Pulsus alternans is not known to be affected by the vagus.

Atrio-Ventricular Rhythm is a condition in which the heart responds to impulses arising in the A-V node or the junctional tissues in its immediate vicinity, this node then superseding the sinus node, and assuming the office of pace maker for the heart. Such a condition is known both experimentally and clinically. In the most perfect examples of this rhythm, auricles and ventricles contract simultaneously, and the P wave of the electrocardiogram is buried in the QRS complex. In other instances the coincidence is less complete, and the P wave is distinguishable, usually as a downward deflection immediately preceding or following the QRS complex; its direction is downward because the direction of the excitation wave is reversed. Experimentally, the condition may be brought about by a variety of methods; we are here concerned only with the vagus, and simultaneous stimulation of the right vagus and left sympathetic may induce it. The A-V node is under vagal control, and many curious and interesting observations have been made; e. g., in a case of established A-V rhythm, the pace maker being in the lower part of the node, and a degree of block present, the ventricular contractions may precede the auricular, and stimulation of the vagus results in a prolongation of the Vs-As interval, with dropped auricular beats. A-V rhythm arises sometimes in normal subjects just passing under the effects of atropine, either spontaneously or under vagal pressure. It may follow simple vagal pressure in man. It has been shown to occur occasionally with a sinus node arrhythmia; as the sinus rate slows, the A-V node assumes control. In some cases, A-V rhythm being present, vagal compression restores the normal pace maker. Finally, established A-V rhythm is under vagus control, and the heart responds in the usual way to forced respiration, exercise, vagus pressure, and atropine. The diagnosis of this rhythm can only be made with certainty by the aid of graphic methods—the electrocardiograph or the polygraph. The features of the electrocardiogram in established A-V rhythm are (1) equal intervals between the QRS complexes; (2) absence of fibrillary waves between the complexes; and (3) changes in

form and position of the P wave. When auricles and ventricles contract simultaneously, the P wave may be completely buried in the ventricular complex, so that no trace of it is visible, or it may show as a notch on R. Again, P may precede QRS, but with a reduced interval, and is usually inverted; that is, the deflection is downward. Or, when the new pace maker is on the ventricular side of the A-V node, P may follow the initial ventricular complexes, and then causes which lengthen the time of passage through the conducting tissues, such as vagus stimulation will lead to an increased Vs-As interval, and even to dropped auricular beats. In polygraphic tracings, the large waves in the jugular pulse, coincident in time with the arterial pulse, the absence of separate *a* waves, and a regular arterial pulse are the main features. The auricle, contracting at the same time as the ventricle, is unable to send its contents forward through the A-V valve, and discharges its whole content backward into the veins, producing the large wave in the jugular pulse, which is the sum of *a* and *c* occurring together. Lewis has published some very interesting curves showing the transition from S-A to A-V rhythm, in which during the transition period, simultaneous impulses arise in both the S-A and A-V nodes, and the auricle, attempting to respond to both impulses at once, produces a P wave of intermediate form.

Cardiac syncope and the vagus. There are many ways in which cardiac syncope may be produced; none will be considered here except those which are probably or certainly caused by vagus action. When for any reason the blood supply to the brain becomes insufficient, pallor and dyspnoea ensue, followed by loss of consciousness. If the condition continues, there follow epileptiform convulsions with cyanosis. These symptoms are the same regardless of the cause of the cerebral anaemia, and whether the result of cardiac or extra-cardiac causes. They may be brought about by a series of very rapid inefficient contractions of the ventricles, in which the output of blood is insufficient to nourish the brain, or by profound slowing or standstill of the ventricles, as in some cases of block. It has already been stated that intentional stimulation of the vagus, especially the right, may cause standstill. Pathologically, the same condition has been observed in a case of tumor (aneurysm of the basilar artery), so located that under sudden rise of blood pressure in straining at stool, the enlarged aneurysm compressed the medullary centers, and caused cardiac standstill and syncope. In another case, reported by Gerhardt, a tumor compressing the left vagus produced similar effects. Laslett's oft-cited case showed frequent short periods of standstill, lasting four to eight seconds, with syncope. There can be no doubt of the vagal origin in this case, since they were abolished by atropine.

The common form of fainting attack, brought about by emotion or long standing is also chiefly due to the action of the vagus. The loss of consciousness is accompanied by a gradual slowing of the pulse rate and a fall of blood pressure. It is the combination of these two phenomena that is responsible for the loss of consciousness, since neither alone, to the degree witnessed in these cases, is sufficient to produce the effect. The lowering of the pulse rate is not sudden, and the same is true of the return to normal. Atropine hypodermically promptly quickens the pulse, indicating the vagal origin. Whether the fall in blood pressure is also a vagal effect is doubtful.

While there is no evidence that the vagus nerve is responsible

for clinical heart block in cases with a healthy myocardium, it is known that when the conducting bundle is diseased, it becomes much more susceptible, and then vagus effects may become conspicuous, and compression of the nerve may increase an already existing minor degree of block, even to the point of bringing on a convulsion.

The action of drugs on the vagus. Most of the drugs which are used in medicine to modify the heart's action, act largely or chiefly through the nerve supply. Digitalis is the representative of a large group of drugs in which are included also strophanthus and squills. It is usually said that the action of digitalis is to slow the heart rate by stimulation of the vagus center. However, subject to exceptions, this action is slight or absent in most hearts with normal rhythm. When it occurs it is due to depression of stimulation in the sino-auricular node, except when it is administered to the point of incipient poisoning, when a greater or less degree of heart block may be produced, resulting in a slowing of the ventricles. In heart block of partial degree, the bundle of His becomes especially susceptible to this action, and the already slow action of the ventricles is still further retarded. But it is in auricular fibrillation that the action of digitalis becomes especially conspicuous in retarding the ventricular rate, and that its beneficial effects are most often and most strikingly observed. It is now generally conceded that this results from the blocking of a large number of the innumerable disorderly impulses sent forward by the fibrillating auricles. How are these effects of the drug produced? By direct action on the myocardium, or by stimulation of the cardiac center in the medulla? Of the five intrinsic functions of heart muscle, at least three are known to be affected by the drug; (1) rhythmicity is depressed, the rate of stimulus formation in the s-a node is lessened, and sinus arrhythmia, if present, may be increased, or if not already present, may be induced, and these effects are all due to stimulation of the vagus center; (2) conductivity is depressed in the fibres of the conduction system, and this may proceed to all degrees of heart block. This effect is partly vagal, and partly due to a direct effect on the heart tissue. If to a patient with auricular fibrillation, full doses of digitalis be administered, in favorable cases ventricular action is greatly slowed. If now a full dose (1/50th grain) of atropine be given hypodermically, the heart quickens, but not to the full rate present before the exhibition of the digitalis. The amount of quickening is a measure of the vagus effect. The difference between the rate after atropine and that before digitalis is attributable to the effect on the tissue. (3) Irritability is increased, as shown by the occurrence of extra-systoles under full dosage. While these may be temporarily removed by atropine, this is not proof that they are caused by vagus stimulation, since extra-systoles tend to disappear with a rapid heart rate from any cause. (4) Contractility. Little is known of the action of digitalis on this function. When the heart is slowed, contractility is increased, but this is due to the longer period of rest between systoles and the improved nutrition of the heart muscle, and not to the direct action of the drug either on the nerves or the myocardium. (5) Tone. So little is known of this function that it is difficult to make any definite statements. T. Stuart Hart says that digitalis increases tone by its direct action on the heart muscle, while by its action the vagi the tendency to diastolic relaxation is in-

creased, and the end result is the balance between these opposite tendencies.

Morphine and adrenalin injected into the blood stream of animals may produce block, which can be removed by atropine, and is therefore of vagal origin. The slowing produced by aconite is said to be vagal.

Atropine in full dose markedly quickens the heart action. When administered to patients with normal hearts, the quickening is usually 30 to 40 beats per minute, though naturally there are great differences between individuals in this respect, and some persons are relatively immune to atropine. This drug is believed to act on the heart solely by paralyzing the terminations of the vagi in the heart muscle, so that the amount of quickening has been used as a measure of vagus tone. Respiratory arrhythmia is abolished by atropine. Heart block which is the result of vagus action, whether produced by drugs or other means of vagus stimulation, is also completely removed. Attacks of paroxysmal tachycardia may sometimes be brought on in those subject to them by this agent. Rarely, a slow ventricular action, due to complete block, may be quickened. The earliest effect of atropine is vagus stimulation, which causes a slight slowing about five minutes after administration, following which the heart gradually accelerates, the maximum effect being obtained in twenty or thirty minutes. The effect then gradually passes off, and the heart resumes its former rate in the course of an hour or two. The effect of atropine in counteracting the action of digitalis is sufficient reason why atropine should not be exhibited during the administration of digitalis. However, if digitalis effects should appear which are greater than desired, they may be counteracted by atropine in doses of 1/150th to 1/100th of a grain every six hours till the digitalis effects have partly worn off. This course is likely to produce so much discomfort in the way of dryness of the throat, dilation of the pupils, and defective vision, as to arouse the active opposition of the patient, to a degree which will render it impracticable.

Since the completion of the preceding article, Starling* has reported a case of heart block with vagus effects, in which a regular basal rhythm, with a normal a-c interval, was interrupted by frequent brief periods of ventricular standstill, with unconsciousness and convulsions. These attacks were often brought on by swallowing, and could be abolished by atropine. Subsequently a condition of complete block was abruptly established, with complete cessation of the fits, and a slow idio-ventricular rhythm.

* Heart, vii, 1, 1921, p. 31.

REMARKS ON THE PRIMARY TREATMENT OF ACCIDENTAL WOUNDS IN RELATION TO THE GENERAL PRACTITIONER.*

Joseph A. Manzella, M. D.

Brooklyn, New York.

I ADDRESS you gentlemen with a feeling of helpless dissatisfaction, conscious of a task of some difficulty; to present an unbiased, unprejudiced opinion based upon facts so presented that a reasonable conclusion may be reached. I've thought of the heaps of medical journals and the many rows of text books in libraries, and wondered how much was there of real value, real facts, how much there was of personal opinions, distorted facts, and wrong conclusions. I recalled reading recently a paper written by an eminent surgeon wherein his strong statement of apparent fact and conclusions was strongly and vigorously disputed by an equally eminent surgeon in his discussion. I've turned from one text book to another and found conflicting opinions upon a subject, stated as undisputed facts. I have listened to a professor teach that a certain procedure was ideal and another emphatically declare to the contrary. And then down to the general practitioners and ourselves we have probably all experienced the bewildering differences of opinion occurring in our daily practice, and which often make us skeptical and intolerant. Indeed, at times, I believe that many patients get well, not on account of the doctor, but in spite of him.

May I take advantage of your good nature to indulge for a moment in a personal experience which, most likely, many of you have similarly been through, for it will serve to illustrate my attitude in presenting this paper to you tonight? An apparent epidemic of pneumonia had broken out in a country town I was in, and about 26 cases, occurring consecutively and mostly children, had fallen to my lot. After the first three cases, with the eager enthusiasm of a fresh graduate, I adopted a uniform system of treatment. I recall how proudly I sat at home one night after the favorable outcome of the last case, and with complacent self-approval thought that my treatment must be good. And then, too, how well do I recall a week or so later when I lost my next three cases in a row; and with my egotism shattered and my vanity squelched, I sat there a "sadder but a wiser man."

Now permit me to say a few words upon a surgical subject which, though not as spectacular as the work in the hospital operating room, though not as important apparently as the big surgical problems, nevertheless I feel is one that reaches you all, more directly and often, than the major surgery which usually goes to the specialist and the hospital. Most of you here have had or will have frequent opportunity to treat accidental wounds of the non-hospital type, by that I mean most accidental wounds which are not usually rushed to a hospital, such as a crushed thigh requiring amputation, etc. Our industrial

* Read before the Italian Medical Society of Brooklyn, March 9, 1921.

field and the ordinary accidents of civil life give large amounts of such work to the general practitioner and not the specialist, so that I trust this may be of some interest to you all.

If you will bear with me for a moment I will mention certain several methods or observations in reference to primary treatment of accidental wounds.

For the sake of clearness I will endeavor to present a concrete example.

A workman, factory workman, catches a dirty hand in a machine, sustains a ragged, deep, crushed laceration in the palm two inches long and a compound fracture of the middle of first metacarpal bone in good position, the second wound being at outer border of palm about one inch long, and over site of fracture, wounds gaping somewhat, and little or no bleeding. Plain gauze dressing and patient brought to the office shortly after injured. What often happens?

Dr. A. Places the hand in basin of warm water and soap, allows to soak then washes it, dries up with cotton, then places a bichloride of mercury wet dressing, puts on a splint. "Have it heal up by granulation" he says, "come tomorrow for another wet dressing."

Dr. B. Washes wound itself with soap and water, dries, applies alcohol wet dressing, splint, renew and keep wet.

Dr. C. D. & E. Do likewise only using boric acid, carbolic acid or lysol, and a patent preparation, chinosol, respectively.

Dr. F. (A surgeon by the way) washes the wound and places iodoform gauze packing in both with a dry dressing over and splint.

Dr. G. Believes in painting wound and skin with Tr. Iodine and not washing it, suturing, closed with gauze drain, and H., washing wound, Tr. Iodine suturing and no drain, and still another dusts Aristol powder in wounds after washing with alcohol, etc., etc.

As you see, we get a variety of combinations and often with no definite aim in view.

Now I am not putting forth any new claims nor in superior wisdom advocating a particular form of treatment, but I merely submit to you a definite series of cases with a certain fundamental common technique, and with the hope that it may at least assist some in forming a more definite plan; and leave to your judgment whatever conclusions can be drawn from the series.

I will state that for all practical purposes any accidental wound should be regarded as infected and primary treatment requires fundamentally:

First: Stop shock and bleeding. This needs no comment, except, do not use styptics in wounds.

Second: Secure coaptation, drainage, occlusion and rest.

I need not mention principles relating to such with which you all are familiar, but will mention only points incidental and pertaining to the technique itself.

Third: Prevent development of infection. This naturally is of great importance, and upon accomplishment of which the greatest variations in method exists.

Now in the series mentioned this procedure was followed out.

First: Area surrounding wound is cleaned, and shaved if necessary, for a distance reaching at least beyond the area covered by the first layer of gauze dressing, which will subsequently be placed over

the wound. In cleaning do not immerse the entire part but scrub only the margin of the wound and area mentioned above, closing the wound itself with sterile cotton. I've seen a dirty, grimy hand soaked in a basin of soap and water which became a beautiful black muddy solution within a short time, and which was gently finding its way to the depths of a compound comminuted fracture. An ethereal solution of green soap containing alcoholic ether 20%, alcohol 5% I have found excellent, washing this off with cotton plugs saturated with 65% alcohol, and dried.

Second: The wound is swabbed out with the alcohol and here, a most important and absolute principle, remove all foreign particles and dirt, and it must be seen that all devitalized tissue, bone particles, fat and particularly muscle tissue, be removed, even cutting away portions of tissue of doubtful vitality, where it is mechanically practical and justified anatomically, then dry the wound thoroughly. All procedures should be done in a thorough aseptic manner. This may seem needless to state, but it seems oftentimes hard to be fussy with sterility when we are confronted with an original dirty wound, but it pays I'm sure. The wound is then filled with a 5% solution of Dichloramine T. in Chlorcosane and efforts made to reach every part of the wound, by swabbing, spraying or syringe. Coapt, when indicated, by suture but never tightly; drain for twenty-four hours by means of a small strip of parafined gauze preferably, or else rubber tissue all wounds more than skin deep that can be closed mechanically; no drain in open wounds.

Where in doubt as to the vitality of deep structures that cannot be reached, such as necrosed bone in a comminuted fracture awaiting X-ray findings, or any surgical reason dictates leaving wound open; such as an unlocated piece of steel, gauze saturated with Dichloramine T may be placed in wound but not packed tightly. I would emphasize that established surgical principles should always prevail even though this preparation be used. Dichloramine T is then swabbed over wound and surrounding skin. Wound is covered by layer of Paraffined Lace-Mesh gauge and light layer of sterile dry gauze above. Dress daily for first few days by simply applying Dichloramine T and sterile gauze.

Now as to statistics; well do I realize, gentlemen, what a dream such can often be, so I tried to be wide awake when I compiled these and state that in a series of 311 cases treated by this method there was not a single case of infection. The cases treated and cited for purposes of deduction were:

First: All treated within first twenty-four hours.

Second: All received no treatment other than that described.

Third: All treated by me personally.

Fourth: All wounds were traumatic, such as contused lacerated and crushed wounds ranging from deep skin lacerations to comminuted compound fractures,—lacerated, severed tendons, crushed bone injuries and intraarticular wounds.

Fifth: All received same treatment varied only by variation in surgical mechanics, tendons sutured, fractures reduced, etc., all at primary treatment.

I submit these observations for your own conclusions. There is no claim to entire originality, I merely endeavoring to fix the comparative

value of a definite procedure described more or less by other men.

As you all may recall, the Dakin-Carrell method of treating wounds has shown wonderful results, but the technique required in their method is so complicated, when properly carried out, that it is applicable practically to hospital practice only, so Chloramine and then Dichloramine T were subsequently added by Dakin to the Chlorine group of antiseptics while in search of a simpler method of making available the antiseptic properties of the hypochlorities.

These two latter preparations are less irritating to the skin and the last, Dichloramine T, is a more stable preparation which liberates its antiseptic element slowly and powerfully. I feel it essential to mention a few peculiarities of Dichloramine T inasmuch as they are important in its application.

First: Dissolves in oil which must be chlorinated. Solvent now used is a chlorinated paraffin wax introduced by Dr. Dakin under name of Chlorcosane.

Second: No water must come in contact with solutions of same. It decomposes with evolution of Hydrochloric acid.

Third: Apply with ordinary cotton swab or all glass atomizer or in deep wounds with all glass syringe or else simply pour into wound.

Fourth: Keep in dark, glass stopped, bottle.

Fifth: Occasionally causes irritation of skin if solution is decomposed from contamination, or exposure to heat (145° F.) or cold of marked degree, and metals also decompose the solution.

Sixth: Incompatible with other antiseptics.

Seventh: Effects are very rapid, 5% solution usual for wounds, though 8% may be used.

I may add that I used this preparation in a very large number of cases which could not be classified as being treated under practically identical conditions as this series, but which large number nevertheless gave striking evidence of the powerful action of Dichloramine T, and without any harm to the tissues or the individual.

I believe it interesting to note that I ran a second series of 326 cases, all under similar conditions and similar type wounds except that they averaged of less severity, and were somewhat more frequently drained. Here I used Tr. Iodine in same manner as Dichloramine T. There were 15 cases, or 4.7%, of infections which were promptly controlled. More pain was experienced in its application, time of healing was longer, and escharotic effects at times observed. However, I still consider this as an excellent substitute method for that of Dichloramine T when latter is not available.

May I make a few remarks and surgical "don'ts" applicable and which shall I hope serve at least to crystallize some facts.

First: Don't as a rule probe wounds.

Second: Don't neglect to shave hair around a wound.

Third: Don't use strips of dry gauze in corner of a closed wound, particularly a small wound for drainage; it usually makes an excellent cork.

Fourth: Don't suture wounds tightly.

Fifth: Don't use collodion as a primary dressing.

Sixth: Don't be in a hurry to amputate badly crushed fingers and toes; with patience they often do surprisingly well.

Seventh: Don't put on tight dressings or splints over wounds,

particularly within first twenty-four hours; subsequent swelling and edema cause much damage.

Eighth: Sterile adhesive strips may be used at times to coapt skin in parts not so movable.

Ninth: Paraffined gauze strips make excellent drains.

Tenth: Don't use catgut in skin if possible.

Eleventh: When in doubt as to the vitality of deep tissues don't close up wound entirely.

Twelfth: Don't overlook severed tendons.

I once heard Da Costa say, "Many times when operating, the highest wisdom is to stop" and the same rule ought to apply to a surgical address, so I will hasten to apply this rule with the hope that my remarks, received with courtesy and patience, may carry with them the humble spirit in which they are uttered for, to quote again, may I say:

"I have praised and blamed, yet what am I that I should judge?"

JUNE MEETING

Time. June 18, 1921

Place. Oyster Bay

Speakers. Col. Theodore Roosevelt,
Assistant Secretary of the
Navy.

Rev. Newell Dwight Hillis,
D. D., Pastor of Ply-
mouth Church.



EDITORIAL



THE NARCOTIC SITUATION.

THE close of the legislative session sees three bills in the Governor's hands, all bearing on the narcotic situation in this State. The two so-called Lord bills reflect the general feeling of the medical profession inasmuch as they do away with the state narcotic control, but they substitute nothing for it. The Folin-Smith bill, which is in most ways a repetition of the Cotillo bill of a year ago, is distinctly obnoxious inasmuch as it practically compels drug addicts to enter institutions for their cure, and leaves to the superintendent of the institution the final judgment as to how long the patient shall remain. This places too much arbitrary power in the hands of a man who may be financially interested, and should be done away with. In any event, no appropriation was made for the Narcotic Commission, and it goes out of business after having thoroughly demonstrated its inadequacy.

Just what steps will be taken to dispose of the regulations already promulgated are not clear at this time, though it is to be hoped that they also will be thrown into the discard.

There is left a situation that requires very real consideration on the part of the Federal Government, as it is only through federal control that a complete handling of the situation in an effective way is possible. It is perfectly evident that lack of co-operation between states and varying forms of state legislation are bound to make ineffective any regulations of the narcotic drug trade unless control is established at the very source of the trouble. So long as any manufacturer is free to make and ship narcotics out of the country, there is bound to be direct leakage either by dishonesty in those who handle the material for export and who are thus able to divert it into illegitimate channels, or as is now largely done on the part of those who buy ostensibly for foreign trade and smuggle the drugs back into this country. No matter how watchful the officers of the law may be this will continue unless the Federal Government sees fit to exercise a restrictive power and limit the manufacture to the normal need of this country alone. For this purpose narcotics should be rigidly forbidden in proprietary medicines, and only the normal amount manufactured under direct license for legitimate use by physicians. Unless the prohibition against the use in proprietaries is enforced it would be possible for any drug house to buy up practically the entire output for any one year, thus limiting the physician's power to prescribe through lack of proper supply, at the same time that an unrestricted supply is provided for use without prescription. Were some such plan as this adopted and every physician registered, it would be a simple matter for federal agents to follow up the distribution of narcotics and identify those physicians who might be prescribing abnormal amounts. In addition to this advantage of control, the United States through its

voluntary limitation of supply, would no longer be a party directly or indirectly to the present narcotic trade with China which is being carried on, so the enemies of Japan aver, with sinister purpose on the part of that nation. As far as the legality of such a method is concerned it should be perfectly simple for the Federal Government to limit the manufacture of narcotics by the same means that it has used in controlling alcohol. It will work hardship to some manufacturing concerns, but will control efficiently what is at present a general scandal.

H. G. W.

DIVINE HEALING.

BY WAY of preface let it be distinctly understood that divine healing is not the same as Christian Science even though that cult has arrogated the expression to itself. Divine healing is a term that applies to any form of cure wrought through the intercession of the Deity, and ranges from the Acts of the Apostles to the fetichism of darkest Africa. Not so long ago it was the inspired Mr. Monck who would wrap up some of his invisible power in a clean handkerchief which would convey the healing virtue to some bedridden sufferer. Today it is Trinity Church in Newcastle, Pa.; ten years ago it was Dean Worster and the Emanuel Movement; and for the last four centuries it has been the grotto at Lourdes and the shrine of St. Anne de Beaupré; and before the Christian era it was Asclepius, whose temple at Cos with its votive tablets helped to make Hippocrates the master of healing that he was. Through all time the mind of man has turned to some mysterious power that in the gropings of his intellect he has revered and adored as higher and better than himself.

It is interesting to notice that the newspapers of April 22nd contain two different and yet related news items—one telling of the accomplishments of Dr. W. Thomas Reynolds, Rector of Trinity Episcopal Church at Newcastle, Pa., who has for more than a year conducted a prayer circle and healing clinic. It is reported that “hundreds of persons are openly testifying to benefits which they say they have received as a result of entering the healing clinic with faith and prayer.” The other item deals with the efforts of Health Officer Hagan of Jersey City to put salt on the tail of one Panolias, a Greek faith healer, who is reported to be curing incurables by prayers which he says over them. He is reported to have cured paralysis, nervous disorders and defects in vision.

In a recent lecture upon Christian Science a former physician, now turned scientist, is quoted as saying that he had often cured sore throats by the use of medicines that were not appropriate, but that produced sensations which the patient thought were evidences of healing. From this he argued that it was not the medicine that healed but only the idea, and he counselled his hearers to take up with the rigmarole of Mother Eddy's Church and discard such useless things as drugs. Like all part truths, this advice is good for those whose sore throats are merely sensory disturbances largely aggravated by imagination, but if that physician had ever seen a syphilitic throat go from bad to worse, or if he had ever watched a virulent diphtheria or seen a case of septic sore throat, and if he were impressed, as most conscien-

tious physicians are with their inability always to recognize the type of disease with which they are dealing, he would not dare to urge the credulous and inexperienced to submit themselves to deadly disease and the public to preventable suffering. It does little good to hold a shallow knave of this kind up to rebuke because his mind is incapable of appreciating the sort of hell that waits for such as he; and some three thousand years ago Solomon the Magnificent wrote feelingly of the folly of arguing with fools.

But this prayer and faith clinic at Newcastle is of a different sort, inasmuch as it is an honest attempt to relieve those imaginary troubles, which are very real to their possessors, without endangering either the individual or the community by denying the reality of the cause. The cure is wrought by substituting certainty for doubt, and hope for despair in impressionable minds that are approachable through religious fervor. It is noteworthy that after any great world upheaval there is apt to be a wide spread revival of mysticism. If that can be directed into channels that are at once intelligent and elevating, and if the impressionable can be led into an atmosphere of lofty ideals, only good can come from it. It is safe to say that a very large part of the physician's helpfulness to his patient lies in the unconscious dependence that the patient places upon his belief in the certainty of help, wherefor if the pills be of auspicious color and the mixture taste as if it has excellent virtue in it, then time and rest and the patient's recuperative powers will do the work, not in spite of the doctor, but because of the mental uplift of his presence.

H. G. W.

RADICAL OBSTETRICS

DOUBTLESS there will be some who ask "what does an internist know about obstetrics?" This is a very natural question, and one that is not always easy to answer. The professional obstetrician has for a number of years pointed out with more or less caustic emphasis that a general practitioner is criminally ignorant of midwifery, and accuses him of meddling too much on the one hand, or relying too much on the conservative powers of nature on the other. And now comes Dr. Potter of Buffalo to show the obstetricians something radical in obstetrics that makes the ordinary practitioner gasp with astonishment and ask whether his obstetrical brethren have completely lost their heads. If we are correctly informed, Dr. Potter has reduced the science of midwifery to two procedures—caesarian section and delivery after version under full anesthesia. This is a degree of radicalism that it seems a little hard to defend. Have women changed to such a degree that they are no longer capable of spontaneous delivery? Has the human fetus changed so that it can now easily endure being forcibly dragged out by the feet? And are deformed pelves and flabby uterine muscle so frequent as to demand abdominal section so frequently as is now being done? In those high and far off times, some twenty years or more ago, when the editor was trusted with the obstetric division as part of his hospital service, the necessity for a caesarian section was made the occasion of great excitement among the brethren, and it was considered a rare opportunity to be permitted to view this unusual opera-

tion. Now Dr. Potter has made it so common that the ladies of Buffalo and its environs have come to look upon it with complaisance as a short-hand method of relieving them of a disagreeable experience. One would gather that in Dr. Potter's hands the operation is no more serious than lancing a boil. As to the manual delivery, we are given to understand that Dr. Potter waits until the cervix is well dilated and then under full anesthesia pushes the head back from the perineum, does a version, and delivers the child by the technique which in our day was reserved for the more difficult breech cases. How ignorant we must have been, and in what an Egyptian darkness we must have moved, for it was carefully impressed upon us in those days that the treatment of the after coming head was a matter of considerable seriousness, and we were warned that the fetal mortality was apt to be very high! We understand, both by word of mouth and from a comparison of Dr. Potter's published figures, that he has a considerably higher fetal mortality than the general average of lying-in hospitals. And it is just upon this point that the whole question turns. As we understand the matter, the consummation of the art of obstetrics is to be able to help into the world the largest possible number of living un-mutilated children with the least degree of injury to their mothers. We also are impressed with the fact that the whole phenomenon of birth is a wonderful mechanism that was not devised by man, but has been evolved little by little through long ages so that the race may perpetuate itself. Now any procedure that cannot show that it is a distinct improvement upon existing processes is essentially bad, and Dr. Potter's figures, based as they are upon clean workmanship and ideal surgical surroundings, for no one has criticized Dr. Potter's technical mastery of his subject, are distinctly ominous. It is bad enough to record a high fetal mortality when there has been prolonged labor with subsequent exhaustion to mother and child, or severe traumatism, or sepsis following inexperienced and bungling workmanship, but when a higher mortality is recorded for a series of selected cases in which none of these complicating factors are at work, than the method itself is essentially bad. Not only is it bad in itself, but it is likely to have a wide-spread malign influence because ill-advised enthusiasm caught from Dr. Potter by immature and thoughtless accoucheurs is bound to multiply fetal mortality throughout the state and nation. It seems high time that conservative obstetricians should bring before the medical and lay public the impropriety of Dr. Potter's method, if for no other reason than to give nature a chance to let a child be born in the natural way, now and then.

H. G. W.



Obituaries



DEPARTMENT UNDER THE CHARGE OF WILLIAM SCHROEDER, M.D.

FRANK PROAL HATFIELD, M. D.

BORN in Franklin, Mo., February 8, 1871 and died at Rockaway, Long Island, February 5, 1921. He was the son of Samuel P. Hatfield and Helen F. Cummings. He was educated at the Flushing Institute, receiving the degree of M. D., from the Long Island College Hospital in 1899. At the time of his death he was physician to the Rockaway Beach Hospital and a member of the Associated Physicians of Long Island from 1917-1921. W. S. SR.

WILLIAM JOHNSON BURNETT, M. D.

BORN in the United States in 1842 and died at Woodside, Long Island on December 6, 1920, he was educated at the University of Michigan and graduated in medicine at the Detroit Medical School in 1869. During his professional life he was surgeon to the Queens County Railway Company and Physician to the St. John's Hospital, L. I. City.

For a number of years he was president of the Long Island City Savings Bank. A member of the Queens, Nassau County Medical Society of which he was president in 1906, the Associated Physicians of Long Island from 1903-1920. He is survived by his widow, Clara, and a daughter, Mrs. F. Hurd. W. S. SR.

FRANCIS AUGUSTUS SCHLITZ, M. D.

BORN in Germany in 1845 and died in Brooklyn, N. Y., November 28, 1920. He was educated in the University of Strasbourg, receiving his medical education at the New York University, graduating with the degree of M. D. in 1878. During his professional life he was physician to the German and Deaconesses Hospitals. A member of the Medical Society, County of Kings from 1882-1920. Associated Physicians of Long Island from 1906-1920, and the American Medical Association. W. S. SR.

OSWALD JOERG, M. D.

BORN in Leipsic, Germany, June 28, 1844 and died in Brooklyn, N. Y., November 4, 1920. He was the son of Johann C. G. Joerg and Caroline Hansius, both of Germany. Dr. Joerg was educated in

the University of Leipsic where he also received his degree of M. D., in 1870. During his professional life he was physician to the Brooklyn Bureau of Charities and Society for Improving the Condition of the Poor. A member of the Medical Society, County of Kings, 1884-1920, Associated Physicians of Long Island, 1906-14, and the Brooklyn Institute of Arts and Sciences.

He is survived by a son, W. L. G. Joerg.

W. S. SR.

JAMES ALOYSIUS O'REILLY, M. D.

BORN in New York City February 7, 1887 and died at Middletown, New York, October 13, 1920. He was the son of James O'Reilly and Mary Hopkins. His education was received in the public schools, and his medical education at the College of Physicians and Surgeons, N. Y., where he graduated in the class of 1912. This was followed as interne at the Coney Island Hospital and the Loomis Sanatorium. He held the position of first lieutenant U. S. A. and physician to the Brooklyn Hospital O. P. D. A member of the Associated Physicians of Long Island, 1918-20, The Medical Society, County of Kings, 1919-20, American Medical Association, Alumni of the Coney Island Hospital and the National Society for the Prevention of Tuberculosis.

W. S. SR.

EDWARD JOSEPH CARROLL, M. D.

BORN in Brooklyn, N. Y., and died at Richmond Hill, October 2, 1920, the son of Patrick Carroll. He was educated in this city, and graduated from the New York University in the class of 1882.

During his professional life he was physician to St. Catharine's Hospital, a member of the Medical Society, County of Kings from 1895-99, the Brooklyn Medical Society from 1895-1901.

He is survived by his widow, Martha A. Stall and a son, Edward J. and a daughter, Virginia C. Carroll.

W. S. SR.

ANNA FOREST ROWE, M. D.

BORN in New York City in 1858, and died at Boston, Mass., September 18, 1920. Her medical education was received in the Woman's Medical College of New York where she graduated in 1880. She was one of the founders of the Atlantic Ave. Dispensary and practised medicine in Brooklyn and New York. A member of The Medical Society, County of Kings from 1886-1920. She is survived by her husband, William V. Rowe.

W. S. SR.

HENRY BULLWINKLE, M. D.

BORN in Brooklyn, N. Y., September 24, 1865—where he died September 14, 1920. He was educated in the public schools and graduated M. D., from Bellevue Hospital Medical College in 1888.

During his professional life he was connected with St. Catherine's Hospital and an inspector for contagious diseases in the Department of Health.

He was the husband of Augusta and father of H. Griffin Bullwinkle, M. D.

A member of the Medical Society, County of Kings from 1890-1904.

W. S. SR.

WALTER BENAIAH CHASE, M. D.

BORN in the town of Lexington, N. Y., December 18, 1842—and died in Brooklyn, N. Y., November 15, 1920, son of Charles P. Chase and Ruth D. Baldwin. He was educated in the public schools, and West Durham Academy. His medical education was received at Bowdoin College, graduating M. D. in 1867. Dr. Chase married in 1866 Sarah H. Coe. Of this marriage the following children were born: Carroll Chase, M. D., Arthur L., Herbert, Ruth E., and Marion Chase.

During his professional life he held the following positions: Private in Company B., 102d Regt., N. S. Army. 1864, Gynecologist, Bushwick, Central East Brooklyn, Eastern District, Long Island College Hospital, Nassau and Jamaica Hospitals.

A member of the following medical societies: Green County Medical Society, president, 1873-75; The Medical Society, County of Kings, treasurer 1884-89; President, 1890. Brooklyn Pathological Society, Brooklyn Gynecological Society, president 1892-93; American Association of Gynecologist and Obstetricians; Associated Physicians of Long Island; Honorary member Queens County Medical Society, Second District Branch. M. S. S. of N. Y., president, 1912.

MEDICAL PAPERS

- 1880. Abscess of the Lung.
- 1883. Prophylaxis of Rheumatism.
- 1885. Notes on Peptonized Milk Diet.
- 1885. Health and Hygiene in the Home.
- 1886. Mechanical Support in Uterine Displacements.
- 1886. Antiseptics in Midwifery.
- 1890. Use of the Uterine Curette.
- 1892. Absorption of Uterine Fibroids.
- 1892. Genesis of Malignant Diseases of the Cervix Uteri.
- 1893. Prevention of Puerperal Septicaemia.
- 1893. Chronic Corporeal Endometritis.
- 1894. Treatment of Puerperal Septicaemia.
- 1895. Preparation of the Patient for Celiotomy.
- 1896. A Case of Ectopic Gestation.
- 1897. Surgical Shock and Hemorrhage.
- 1898. Tubal Pregnancy.
- 1898. The Treatment of Hemorrhoids.
- 1899. Intrapelvic Adhesions.
- 1900. Post Operative Treatment of Abdominal Sections in Women.
- 1900. Difficult and Obscure Pus Cases.

- 1894. Pelvic Abscess.
- 1903. Treatment of Cancer of the Cervix.
- 1897. Absorbable Ligatures and Sutures.
- 1907. Buried Sutures and Ligatures.
- 1910. Treatment of Inoperable Uterine Cancer.
- 1911. Report of Mortality of Cancer in the U. S. 1910 and 1911.
- 1911. Some Factors in Operative Technic.
- 1915. Radium Treatment.
- 1915. Radium in Gynecological Practice.
- 1916. Clinical Aspects of Radium Therapy.
- 1918. Progress in Radium Therapy.

W. S., SR.

BURR BURTON MOSHER, M. D.

BORN June 30, 1866 at Union Springs, New York and died in Brooklyn, N. Y., January 31, 1921. He was the son of Edgar Daniel Mosher and Harriet Elizabeth Fuller. He was educated at the Friends' Academy, receiving the degree of M. D. from the Long Island College Hospital in 1890. During his professional life he was connected with the following hospitals: Interne, Brooklyn Hospital, 1890-91; Surgeon, Brooklyn Eye and Ear Hospital, St. Peter's and Brooklyn Hospitals; Orthopaedic Surgeon, Brooklyn Hospital and St. Giles Home for Crippled Children. A member of the Medical Society County of Kings, 1891-21, American Medical Association, Associated Physicians of Long Island 1905-21; Brooklyn Surgical, Pathological and Pediatric Societies, Medical Society of Greater New York.

MEDICAL PAPERS

- 1899. Remarks on the Modern Foot Clothing.
- 1901. What is the Progress in Tubercular Spondylitis?

W. S., SR.

WALTER R. ISZARD, M. D.

BORN at Clayton, New Jersey, and died in Brooklyn, N. Y., February 1st, 1921. His medical education was received at the Hahnemann Medical College of Philadelphia. During his professional life in this city he held the position of Surgeon to the Cumberland Street, Prospect Heights and Carson Peck Hospitals and the Home for Aged.

A member of the Associated Physicians of Long Island 1912-21, County and State Homeopathic Medical Societies, and the Academy of Pathological Science, of Hyatt Lodge F. A. M., Clinton Commandery and Kismet Temple.

He is survived by his widow, Alice E. Clinton.

Medical Book News

BOOK REVIEW SUPPLEMENT TO THE LONG ISLAND MEDICAL JOURNAL

Edited by JAMES M. WINFIELD, M.D.

All communications, books for review, etc., should be addressed to the Editor of this Department, 1313 Bedford Ave., Brooklyn, New York

1921, No. 5

MAY, 1921

5 PAGES

VENEREAL DISEASES.

VENEREAL DISEASES, THEIR CLINICAL ASPECT AND TREATMENT. With an Atlas of 106 colour and 21 half-tone illustrations. By J. E. R. McDonagh, F. R. C. S. St. Louis, C. V. Mosby Company, 1920. 419 pages. Royal 8vo. Cloth. \$20.00.

This is a book worth a place on any doctor's shelf. 250 pages are given to a consideration of syphilis; there is a complete chapter on chancroid; the remaining 150 pages treats of gonorrhoea. The numerous handsome color plates makes it a real atlas of luetic and chancroidal lesions. Syphilis in all its aspects, with a complete discussion of all our recent knowledge with specific directions for the many forms of treatment. is thoroughly presented.

The chapters on gonorrhoea are complete and definite opinions based on personal experience are entertainingly written. The most interesting is that part dealing with the *chemo-therapeutic treatment of gonorrhoea*. The author states that no cure of gonorrhoea will ever be accomplished except by medication through the blood stream, either by vaccines or mineral medicines introduced into the blood stream.

Cano, in this country, has advocated intravenous use of horse serum containing methylene blue and phenal. The results have not been specific, though the intraprostatic injections of the serum have been of benefit in some cases of chronic Neisserian infection.

McDonagh, from results based on his own work, enthusiastically advocates chemotherapy in the form of colloidal palladium, which he calls "pallamine." Three injections of 5 c. c. are given intravenously. He also uses "intramine," a diortho-diamino-thio benzene, by hypodermic injections. With this is combined vaccine therapy. Iodine and silver colloidal preparations have also been tried. In the reviewer's hands colloidal iodine has been of no benefit. The use of colloidal metals in the treatment of infectious diseases is by no means new but McDonagh has revived it and gives definite directions for their use in

gonorrhoea, and developed new colloidal metal with which he states many positive beneficial results may be secured.

The discussion is an interesting contribution to the still unfinished search for a specific gonorrhoeal therapy.

The author's style makes the entire book most readable and there is much valuable knowledge for any clinician. The beautiful color plates and prints combined with the text stamp this as one of the significant books on venereal disease published.

STURDIVANT READ.

ASHHURST'S SURGERY, 2D EDITION

SURGERY: ITS PRINCIPLES AND PRACTICE. By Astley Paston Cooper Ashhurst, A. B., M.D., F. A. C. S. Second Edition, thoroughly revised. Philadelphia and New York, Lea & Febiger, 1920. 1202 pages, with 14 colored plates and 1129 illustrations. 8vo. Cloth, \$10.00.

Ashhurst has presented his subjects in clear, convincing style. He has the faculty of conveying his thoughts without tiring his reader. The work bears every evidence of scholarship and attainment. To one who had the privilege of receiving his early training under the traditions and teachings of the elder Ashhurst, it is interesting to note how closely the teachings of the son follow those of the father.

Amputations and fractures are brought up to date, and there is much instructive information. Page 395 on fractures of the forearm says: "Skiagraphs are valuable and interesting, but I advise the inexperienced not to be terrified by the appearance of the bones in a skiagraph into thinking that only operative treatment can give his patient a good result." Would that all X-ray men might read this and take heed not to draw black arrows pointing to a slight overriding of the two fragments.

The author emphasizes the fact that Nelaton's line (1847), Allis' sign (1877) Bryant's triangle (1878), are as familiar and as valuable physical signs today as when first described.

Dislocations are treated about the same as in all text-books. Considerable space is given to dislocations of the hip. On Page 440, the author reports having seen a case of radio-carpal dislocation.

Orthopedic conditions are fully described and are unusually well written. Tuberculosis of the hip deserves special mention and the illustrations are excellent. Tubercular joints are described with the exception of the shoulder joint.

Text on orthopedic surgery when well written and illustrated is a valuable addition to a text-book on surgery.

Breast tumors are fully described. In empyema, notwithstanding the numerous treatments recommended following the war, Ashhurst sticks to excision of a rib.

Forty-eight pages are given to Hernia and the subject is carefully covered.

In abdominal surgery, the text is excellent but the sketches illustrating the technical side do not do the book justice.

HARRY R. TARBOX.

THE HEART AND AORTA; STUDIES IN CLINICAL RADIOLOGY.

THE HEART AND THE AORTA: STUDIES IN CLINICAL RADIOLOGY. By H. Vaquez and E. Bordet. Translated from the Second French Edition by James A. Honeij and John Macy. New Haven, Yale University Press, 1920. 256 pages, with 181 illustrations. 8vo. Cloth, \$6.00.

The second edition of a rather exhaustive treatise on radio-technic and diagnosis of the heart and great vessels. The translation of Honeij is characteristic of his excellent style and worthy of mention.

The advantages of orthodiascopic and teloradioscopic technic which the authors decidedly favor are logical and well explained. After a discussion of the normal cardiac outline which should be studied in the anterior and oblique positions, a fairly thorough description of the pathological heart follows.

Schematic drawings abound throughout the book but it is to be greatly regretted there are not more actual radiograms to demonstrate the various lesions.

How practical these exhaustive studies may eventually prove to be is problematical but considerable credit must be given the authors for their thorough and painstaking efforts. Interpreted with the clinical picture and the usual methods of percussion and auscultation the advantages with perfect technic are self-evident. Nor do the authors infer the radioscopic studies are to replace the old time methods but rather supplement same. It is an added weapon of considerable value and in many instances a deciding factor in intra-thoracic determination.

A concluding chapter supplemental to the first edition deals with the technic and localization of foreign bodies as developed in the recent war.

In these days of electro-cardiograms and expensive armaments for more perfect cardiac study a book of this type is extremely illuminating and puts to shame the great mass of radiographers who, with but slight and insignificant additional equipment, might obtain results not only as satisfactory but even of greater informative value.

MILTON G. WASCH.

HEART AFFECTIONS, THEIR RECOGNITION AND TREATMENT.

HEART AFFECTIONS, THEIR RECOGNITION AND TREATMENT. By S. Calvin Smith, M. S., M. D. Philadelphia, F. A. Davis Company, 1920. 440 pages, 83 illustrations. 8vo. Cloth, \$5.50.

The outstanding feature of this well-printed octavo volume of 417 pages of text and 83 illustrations is the practical note which dominates. In the introduction, this is emphasized by the author's appraisal of the relative importance in the cardiological examination, of history, inspection, palpation, percussion and mensuration, which he places in the above order. And further, by quoting as today's cardiac aphorism:

"The muscle is of more importance than the murmur;

The rhythm is of more importance than the rate."

There is much of interest in the author's presentation of his subject. The style is alert, incisive, terse, and heightened here and there by the quotation of phrases and paragraphs from the writings of others. The chapters are short, yet inclusive of the pertinent facts. While nothing of value in diagnosis is omitted, there is no obscuration of the subject matter by long and tedious discussion. This, with prominent paragraphing, has resulted in a splendidly readable book of small but adequate compass. For ready reference it is to be relied upon, and the clarity with which the problems are discussed is bound to be of much help to student and practitioner. The author modestly expresses the hope that his readers will be stimulated to delve into the more elaborate volumes on cardiology.

The scope is broad, and there are chapters on anatomy, physiology, examination of patient, laboratory aids in diagnosis, the polygraph and electrocardiograph, blood-pressure, arrhythmias, pericarditis, myocardial disease, endocarditis, chronic valvular disease, congenital heart, arteriosclerosis, aneurism, angina pectoris, neuro-circulatory asthenia, and treatment. The consideration of the non-medicinal features of treatment is especially good, and tinged by the sanity of experience.

FRANK BETHEL CROSS.

KEEN'S SURGERY, VOLUME 7.

SURGERY: ITS PRINCIPLES AND PRACTICE. By Various Authors. Edited by William Williams

Keen, M. D., LL. D. Volume 7. Phila. & London, W. B. Saunders Company, 1921. 855 pages, 359 illustrations, 17 of them in color. 8vo.

This supplementary volume of Keen's Surgery was rendered necessary by the experience gained in military and naval surgery during the Great War and is therefore devoted almost exclusively to the discussion of war surgery. The fact that the lessons learned during the war period can be so profitably applied to surgery in times of peace makes this book of especial value now when a permanent record of the newly acquired knowledge is essential for the preservation of such knowledge and for its dissemination among the profession at large.

The preparation of the various chapters of the work has been let out to recognized experts with most satisfactory results.

The volume is a fitting addition to its predecessors and will doubtless find its way to the bookshelves of every progressive surgeon.

T. B. S.

SYPHILIS.

SYPHILIS. By Loyd Thompson, Ph. D., M. D. Second Edition, thoroughly revised. Philadelphia and New York, Lea & Febiger, 1920. 486 pages, 81 illustrations, 7 plates. 8vo. Cloth, \$7.00.

Books on syphilis have become so numerous that one wonders how an author is able to make his own volume differ from those of other respected writers. Yet this subject is receiving so much attention today and there have been so many new facts brought out in regard to this disease that it is not surprising that our older editions rapidly fall into disfavor as being obsolete.

Dr. Thompson has very faithfully reviewed all the literature from the earliest days of the knowledge of syphilis up to the time of the writing of his manuscript. His brief outline of the history of syphilis is very interesting. This is followed by the early views on the etiology of syphilis and then our more scientific knowledge of its etiology at the present time.

He next devotes a chapter to the pathology of the primary and secondary lesions of the skin and mucous membranes, and in the succeeding chapter the development and course of these lesions with an outline of the general symptoms of the disease. In discussing the individual lesions, the author has gone very carefully into the differential diagnosis of all the conditions which it may possibly resemble.

In chapter VII on "Laboratory Diagnosis" the author has gone into all details of isolation of the offending organism, the Wassermann reaction, including his own modifications of the technic and examination of the spinal fluid.

He has also treated very completely syphilis of all the viscera including the circulatory system, gastro-intestinal tract, individual organs, as liver, spleen and pancreas, and the

central nervous system. And finally he has dealt very extensively with congenital syphilis in all its phases.

The great disappointment in the book is encountered in reading his chapter on treatment. Here he begins with general hygienic considerations and then enumerates the three specifics: mercury, arsenic and iodine. So far as an unbiased consideration of their relative values and methods of administration is concerned, he has left nothing undone, for he has quoted very extensively from workers on both sides of every question. At the end of this chapter under the title of "The Cure of Syphilis" he has written only two pages. From them one derives the opinion that the treatment of this disease is comparatively simple if you use the three specifics. After having given sufficient salvarsan to produce one negative Wassermann, his patients have another serological test in one month. If this is negative he allows an interval of six months before making further examinations. The reviewer thinks this an error as many Wassermann's become positive in two or three months and the patients should immediately be returned to active treatment.

From all other standpoints this work is admirably done.

E. A. G.

DIAGNOSTIC AND THERAPEUTIC TECHNIC.

DIAGNOSTIC AND THERAPEUTIC TECHNIC. A Manual of Practical Procedures Employed in Diagnosis and Treatment. By Albert S. Morrow, A. B., M. D., F. A. C. S. Third Edition, entirely reset. Phila. & London, W. B. Saunders Company, 1921. 894 pages, 892 illustrations. 8vo. Cloth, \$8.00.

This publication should appeal to hospital internes and general practitioners not so much from its diagnostic technic as from its therapeutic procedures. The various forms of paracentesis, methods of blood transfusions, salvarsan administrations and many other methods of treatment are considered in great detail. One needs but to follow the explicit directions "to go right." The concise and clear presentation of the author should be appreciated by the busy practitioner.

HENRY JOACHIM.

PRACTICAL TUBERCULOSIS.

PRACTICAL TUBERCULOSIS: A Book for the General Practitioner and Those Interested in Tuberculosis. By Herbert F. Gammons, M. D. St. Louis, C. V. Mosby Company, 1921. 158 pages, illustrated. 12mo. Cloth, \$2.00.

The purpose of this book is to gather together into a relatively small space all the present known facts pertaining to Pulmonary Tuberculosis and to offer this in such a manner as to be interesting as well as instructive

to the general practitioner. To accomplish this a great deal of condensation and selection of material has been resorted to, and it may be said on the whole rather well. The author has drawn freely upon many authorities, stressing what he believes to be of value, omitting much of the theoretical, striving at all times to be practical. We commend it heartily to the family doctor. He will find it easy to read and easy to profit by reading.

FOSTER MURRAY.

MEDICAL GYMNASTICS IN MEDICINE AND SURGERY.

MEDICAL GYMNASTICS IN MEDICINE AND SURGERY. By E. Bellis Clayton, M. B., B. C. (Cantab.) New York and London, Longmans, Green & Co., 1920. 159 pages. 12mo. Cloth, \$1.80.

Clayton's handbook was written for students of medical gymnastics, and he forestalls the criticism that masseurs and masseuses are being taught too much medicine, by stating that they should know something about the condition which they are treating. He remarks that there is a great difference between intelligent massage and machine like movements. In accordance with these views, each condition described, or considered, in the text has a short definition supplied, followed by the causes, signs and symptoms, and finally the treatment from the medical gymnastic standpoint. Massage is such a valuable adjunct to the practice of medicine and surgery and it is so often performed by persons who are insufficiently trained, and who may do distinct harm to the patient, that publications such as this one are distinctly of value and therefore welcome.

W. H. D.

LABORATORY SYLLABUS OF CLINICAL PATHOLOGY.

A LABORATORY SYLLABUS OF CLINICAL PATHOLOGY. By Charles E. Simon, B. A., M. D. Octavo of 86 pages, interleaved. Philadelphia and New York, Lea & Febiger, 1919. Price, \$2.00.

This is a syllabus written chiefly for instructors in clinical pathology. It is divided into thirty-nine lessons and covers the subject matter of a course in clinical pathology very thoroughly. Each lesson tells the instructor what apparatus to prepare and tells the student concisely how to perform his experiments. Each lesson ends with a series of questions designed to test the student's grasp of the theories involved and the diagnostic significance of the tests.

E. B. SMITH.

THE SOCIAL DISEASES

THE SOCIAL DISEASES: TUBERCULOSIS, SYPHILIS, ALCOHOLISM, STERILITY. By Dr. J. Hericourt. Translated, and with a final

chapter by Bernard Miall. London, George Routledge & Sons, New York, E. P. Dutton & Co., 1920. 246 pages. 12mo.

This treatise has been divided by its writer into four "books" each with its component chapters. In order of sequence the subjects considered are Tuberculosis, Syphilis, Alcoholism and Sterility. Dr. Hericourt draws attention to the fact that two of these four conditions are voluntary, namely, alcoholism and intentional sterility or "race suicide." The main part of the book is meant to apply to conditions in France, but there is a chapter appended by the translator Herbert Miall, which deals with "The Social Maladies in England."

Investigators and workers in this field of public health and preventive medicine will derive great benefit from a careful reading and digestion of the pages of this treatise.

W. H. D.

SLEEP WALKING AND MOON WALKING.

SLEEP WALKING AND MOON WALKING: A MEDICO-LITERARY STUDY. By Dr. J. Sadger. Translated by Louise Brink. New York & Washington, Nervous & Mental Disease Publishing Co., 1920. 140 pages. 8vo. Paper, \$2.00. (Nervous & Mental Disease Monograph Series No. 31.)

A first glance at this volume discloses a highly medical and scientific aspect. To outward appearances, the volume is a serious exposition of an important subject. But the moment that the principal part of the work is attacked, a feeling of disgust comes over the scientist. For the style is less medical than pornographic. It is written in the method of a boy who is telling a suggestive story and lingering on the details he loves to gloat upon * * * Now there is nothing vulgar or suggestive in a study of sex, and the high-grade physician can talk about it not only among his fellows but also among the laity, without bordering on the obscene. The reviewer has never found Kraft-Ebbing in all his filthy exhibits to arouse the slightest suspicion of his serious aim. Even so unscientific a writer as Lombroso is discovered to be, can scarcely be criticized for his sincerity and serious goal.

We can conceive of every detail which is mentioned in this book served given without deletion—but in a different literary style than has been adopted. The book impresses us as having been written for morbid members of the laity, and if it should get into the hands of the police, or the censor, it could not be excused as being a scientific work. Imagine talking of the statements of a woman relating to her sexual pleasures of the first year of her life! Has the person yet been discovered who can relate such matters? We are forced to the belief that the book serves no good whatsoever, and throws no light upon the subject suggested in the title.

SIEGFRIED BLOCK.

SEX AND LIFE.

SEX AND LIFE. What the Experienced Should Teach and What the Inexperienced Should Learn. By W. F. Robie, M. D., M. R. C. Second Edition. Boston, Richard G. Badger, 1920. 424 pages. 8vo. Cloth, \$6.00.

It is not often that a reviewer lays down a book with a sigh of relief. What with introductions, explanations, prefaces, conclusions, apologies, minute details, is said in four hundred and twenty-five pages in a 8mo demy book in clean language adorned with exhortations to high ideality and repeated protestations of unquestioned sincerity, and permeated by very evident corroborendum convictions—the meaning of it all can be expressed in a single sentence: the absolute necessity for maintaining sexual vigor as the basic activity of a wholesome life warrants expression of the sexual appetite either in a harmonious married state or by masturbation, euphoniously yclept “autoerotism.” Two corollaries are also accepted; perhaps extra-legal sexual intercourse should be condoned in exceptional instances; contraceptive methods are not only proper but necessary.

According to the author—although his book is “sold only to members of the recognized professions”—these teachings ought to be given to all post-adolescents, for all mankind either has so done, or will or should. Whatever may be any individual reader’s opinion of these matters, he will have to admit that the subject has been expressed in an unusual manner. But it is not the master key which is meant to unlock the mystery of life; nor is it the pabulum to feed every soul. It is best read between cold baths.

A. F. E.

BOOKS RECEIVED.

Books received for review are acknowledged promptly in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases review notices will be promptly published shortly after acknowledgment of receipt has been made in this column.

A MANUAL OF SURGERY FOR STUDENTS AND PHYSICIANS. By Francis T. Stewart, M.

D. Fifth Edition. Philadelphia, P. Blakiston’s Son & Co., 1921. 1086 pages with 590 illustrations. 8vo. Cloth, \$10.00.

AN INTRODUCTION TO CHEMICAL PHARMACOLOGY; PHARMACODYNAMICS IN RELATION TO CHEMISTRY. By Hugh McGuigan, Ph. D., M. D. Philadelphia, P. Blakiston’s Son & Co., 1921. 418 pages. 12mo. Cloth, \$4.00.

MEDICAL SERVICE IN MODERN WAR. An Exposition of the Tactical Functions of the Medical Department in Campaign. By P. S. Bond, Lieut. Col. U. S. Army and C. F. Martin, Lieut. Col. U. S. Army, Menasha, Wis., George Banta Publishing Co., 1920. 76 pages. Plates. 8vo.

DERMATOLOGY: THE ESSENTIALS OF CUTANEOUS MEDICINE. By Walter James Highman, M. D. New York, The Macmillan Company, 1921. 482 pages, 95 plates. 8vo. Cloth, \$6.00.

THE MAJOR SYMPTOMS OF HYSTERIA. By Pierre Janet, Ph. D., M. D. Second Edition, with new matter. New York, The Macmillan Company, 1920. 345 pages, illustrated. 12mo. Cloth, \$2.75.

THE COMMUNITY HEALTH PROBLEM. By Athel Campbell Burnham, M. D. New York, The Macmillan Company, 1920. 149 pages. 12mo. Cloth, \$1.60.

OLD AT FORTY OR YOUNG AT SIXTY: SIMPLIFYING THE SCIENCE OF GROWING OLD. By Robert S. Carroll, M. D. New York, The Macmillan Company, 1920. 147 pages, illustrated. 12mo. Cloth, \$2.25.

THE PRINCIPLES OF IMMUNOLOGY. By Howard T. Karsner, M. D. and Enrique E. Ecker, Ph. D. Philadelphia and London, J. B. Lippincott Company, 1921. 309 pages, illustrated. 8vo. Cloth, \$5.00.

THE SURGICAL CLINICS OF NORTH AMERICA. Published Bi-Monthly (Six numbers a year). Philadelphia and London, W. B. Saunders Company, Volume 1, No. 1, February, 1921, (Philadelphia Number). Price per year, \$12.00.

EYE, EAR, NOSE, AND THROAT NURSING. By A. Edward Davis, A. M., M. D. and Beaman Douglass, M. D. Second Revised Edition. Philadelphia, F. A. Davis Company, 1920. 346 pages with 32 illustrations. 12mo. Cloth, \$2.50.

RATIONAL TREATMENT OF PULMONARY TUBERCULOSIS. By Charles Sabourin, M. D. Authorized English translation from the Sixth French Edition. Philadelphia, F. A. Davis Company, 1921. 440 pages. 8vo. Cloth, \$3.50.

PHYSIOLOGY OF PROTEIN METABOLISM. By E. P. Cathcart, M. D., D. Sc., F. R. S. New Edition. London and New York, Longmans, Green and Co., 1921. 176 pages. 8vo. \$4.25. (Monographs on Biochemistry).

DREAM PSYCHOLOGY: PSYCHOANALYSIS FOR BEGINNERS. By Dr. Sigmund Freud. Authorized English translation by M. D. Edor. New York, The James A. McCann Company, 1920. 237 pages. 8vo. Cloth, \$3.50.

TRAUMATIC SURGERY. By John J. Moorhead, M. D., F. A. C. S. Second Edition, entirely reset. Phila. and London, W. B. Saunders Company, 1921. 864 pages with 619 illustrations. 8vo. Cloth, \$9.00.



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NO. 6

A REVIEW OF THE VALUE OF BLOOD CHEMISTRY.*

Esmonde B. Smith, M. D.

Brooklyn, N. Y.

SINCE 1905, when Folin first published his papers on the composition of the urine and called attention to the importance of the nitrogenous waste products of the body, a vast amount of work has been done upon the chemistry of the blood and urine. It is well to pause at times, evaluate this work and determine its influence on medical thought and progress. The writer is of the opinion that these studies have had two important results. First, several practical and valuable diagnostic and prognostic aids have been evolved. Second, the bedside and the laboratory have been brought closer together in a new conception of the pathology of certain metabolic diseases.

Although the non-protein nitrogenous constituents of the blood comprise only 1% of the total nitrogen, several of them have been extensively studied and are of great importance.

Uric acid is formed in the body by the action of specific enzymes on the purines of the food. It is, thus, largely of exogenous origin. Normal blood contains 1-3 mgm. per 100 c. c. of blood. Wells has made the interesting observation that uric acid is excreted as such because the human body possesses no enzyme capable of splitting it into simpler components, as is done in some of the lower animals. Among dogs, he found but one, the Dalmatian, which resembled man in having no uric acid ferment. Many years ago, Garrod found an increased amount of uric acid in gout. His findings were confirmed in 1912 by Folin and Denis and later Myers called attention to an early increase in uric acid in nephritis. This was logically to be expected. Of the three substances, uric acid, urea and creatinine, the first has the most complex chemical structure and one might, therefore, assume that diseased kidneys would find this the most difficult to excrete. One might also hope that, ruling out gout, a retention of uric acid would be a delicate and early sign of impaired renal function. Experience has shown that increased uric acid is found in a variety of conditions and one would hesitate to commit himself to a diagnosis of early nephritis on this evidence alone.

Urea is formed largely in the liver from ammonia which is derived from the deaminization of amino acids formed during digestion. It is thus exogenous in origin and fluctuates with the protein intake, the requirements of the body for amino acids and the ability of the

* Read before the Brooklyn Society of Internal Medicine, March 25, 1921.

kidneys to excrete urea. Normal blood contains 12-15 mgm. urea nitrogen. Hospital cases often show 20 mgm. but anything over 20 may be considered abnormal. Urea, while simpler than uric acid, is structurally more complex than creatinine and its retention, excluding increased intake and high protein catabolism, is an early and valuable sign of impaired renal function. A definite urea retention can be demonstrated before an increase in the total non-protein nitrogen is apparent and therefore the former would seem to be the more valuable test. In the, so-called parenchymatous nephritis, urea retention is moderate, seldom exceeding 60 mgm. It is in the arteriosclerotic kidneys and the marked degenerations of bichloride poisoning and acute nephritis that one finds such high ureas as 100-300 mgm. In cases of increased protein catabolism as in malignancy, pneumonia and intestinal obstruction, high ureas are often found. The urea is but slightly increased in eclampsia. Since the urea responds promptly to dietary influence, it is a good guide as to the effect of treatment but has not the prognostic value of creatinine. Ambard, McLean and others have worked out co-efficients expressive of the relation of urea excretion and retention. They have proved to be of little practical value.

Creatinine is a strictly endogenous product, derived from the creatine of the muscles. Normal blood contains 1-2 mgm. It is of such simple structure that it is readily excreted by the kidneys. Conversely, its accumulation in the blood is a sign that the kidneys are indeed hard hit. The amount of creatinine is, therefore, a valuable prognostic sign. Myers states that the patient cannot survive more than a few months with a creatinine of five or over. The one exception to this rule is acute nephritis.

The normal blood sugar is 0.09-0.12%. Hospital cases often show 0.12-0.14%. The normal threshold of sugar excretion; that is, the amount of sugar which must accumulate in the blood before any "spills over" as it were, into the urine is 0.16-0.18%. Mild diabetes usually shows glycosuria at this concentration. In later stages, the threshold rises. The kidneys find more and more difficulty in excreting sugar. It accumulates in the blood while little or none may appear in the urine. In such a case an opinion based upon urine analysis alone would obviously be misleading. In a recent case of fatal diabetes, there was but a trace of sugar in the urine while the blood sugar rose to 0.6%. Severe nephritis often shows increased blood sugar without glycosuria. This is due to abnormal sugar metabolism and inability of the kidneys to excrete sugar in this disease. In a case of acute streptococcus nephritis now under observation, the blood urea has varied from 60-100 mgm., creatinine from 7-12 mgm. and sugar hyperthy from 0.19-0.24% roidism may show increased blood sugar and hypothyroidism the reverse. Sugar tolerance tests are sometimes of value in these cases. However, blood sugar estimations are of most value in the guidance of the treatment of diabetes.

The estimation of blood chlorides has not proved of as great practical value as the preceding tests. Normal whole blood contains 0.45-0.5%. High chlorides have been found in nephritis, some cardiac conditions, anemia and sometimes in malignancy. Low chlorides have been found in fevers, diabetes and pneumonia. In parenchymatous nephritis while nitrogen retention may be slight, chloride retention is often high and associated with edema. In the arteriosclerotic type, the reverse obtains.

The cholesterol of the blood has been studied in diabetes, pernicious anemia, gall-bladder disease and malignancy. The results have been somewhat variable and this test cannot be said to be, as yet, of great practical value.

A complete review of the chemistry of the blood would include a consideration of the fats, various minerals, blood gases, H-ion comparatively recent, still in the experimental stage and does not properly centrination and acetone bodies. However, much of this work is come within the scope of a practical review.

In conclusion, the writer wishes to call attention to what he considers to be a more important result of studies upon blood chemistry than the mere discovery of certain diganostic and prognostic aids. This is a change in our conception of the mechanism of disease. Histological studies and classifications and the doctrine that the cell is the unit of life have been invaluable and it is not our intention to deprecate them. But, there can be no rational therapeutics without accurate knowledge of the fundamental mechanism of life and disease and cellular pathology did not get close enough to bed rock. Years ago, Vaughan pointed the way when he said, "the cell is not the unit of life; life is molecular." The studies in blood chemistry have brought the clinician and the laboratory close together in observation of the chemical processes of disease while actually in progress. In consequence, the clinician of today thinks more in terms of chemical than of cellular pathology. He speaks of protein poisoning, acidosis, nitrogenous or salt retention and perversions of metabolism where he formerly spoke in terms of tissue reactions. However, we are not yet down to bed rock. There must be certain fundamental physical laws underlying these chemical processes and the writer has hopes that the new science of physical chemistry will discover their application to physiology and pathology. This new viewpoint would seem to be the great contribution of chemistry to medicine.

PURPURA, ERYTHEMA AND URTICARA WITH VISCERAL LESIONS

REPORT OF A CASE

Henry Monroe Moses, F. A. C. P.

Brooklyn, New York

THIS interesting condition occurring in children was thus named by Osler because it is more than one of these diseases and seldom includes all.

In his *Diagnostics of Internal Medicine*, Butler states that "Purpura Erythematosa is found chiefly in the young, and is characterized by gastric pain, vomiting and diarrhea, more or less severe joint involvement, an erythematous form of skin lesion, and marked hemorrhages from the mucous membrances. Frequent occurrences are common. If the kidneys are involved, blood and hemoglobin may be found in the urine, and acute or chronic nephritis results. The spleen may enlarge. Angio-neurotic edema may co-exist. One, two or more of these symptoms may be absent. All may appear in a paroxysmal form."

Stelwagon describes this disease as "somewhat similar to peliosis

rheumatica, except that is observed principally in children, the erythema multiforme aspect is more pronounced; the purpuric characteristic as to the integument less conspicuous; edematous swelling is often noted, suggestive of a combination of purpura and angio-neurotic edema. In addition there are gastric and intestinal symptoms and hemorrhages from the mucous membranes."

This condition is sometimes called "Henoch's Purpura."

A poorly nourished, anemic looking, easily excited, nervous girl, eight years of age was admitted to the hospital complaining of vomiting, diarrhea, swelling and pain in the right knee, swelling of the right arm and a few hemorrhagic spots on each ankle joint. The patient's family history was not good, her father had pulmonary tuberculosis, and her mother suffered from frequent attacks of rheumatic fever. The child's tonsils and adenoids had been removed eighteen months before admission. The patient had had measles one year ago. Her appetite had been good and the bowels regular. There had been no cough, no edema, no dyspnea and no cardiac palpitation.

Five days before admission there was severe pain in the right knee and in the muscles of the right arm, with swelling over these areas. There was no fever and no sweats at the onset of the attack. Two days later the child was put into bed and on the following day, a rash appeared over the right leg near the ankle. This rash faded somewhat on the next day. About this time vomiting and diarrhea appeared; the vomitus was greenish material without blood; the stools were green in color, without mucus or blood. The bowels moved ten to twelve times in twenty four hours. The patient was admitted to the hospital with the above mentioned symptoms. Physical examination showed an acutely ill, pale, anemic child, somewhat nervous and excitable. Pupils were regular, equal and reacted normally to light and accommodation, the tongue was coated, the breath foul and the throat congested. The post-cervical glands were palpable. The heart was rapid, regular, of fair quality. No murmurs were heard. The lungs were normal.

The liver and spleen were not enlarged. There were no masses felt in the abdomen. There was slight tenderness in the epigastrium and in the appendicular region.

The extremities showed a few dark red hemorrhagic spots distributed over both legs around the ankle joints. The temperature was 100.3°; pulse, 120; respirations, 28 on admission. A provisional diagnosis was made of hemorrhagic rheumatism with acidosis causing vomiting and diarrhea. Urine examination showed sp. gr. 1020, negative albumen, negative sugar, positive acetone and negative diacetic acid. Throat culture negative for diphtheria. Wassermann negative. Blood, 8000 W. B. C. 74% polys, 23% lymphocytes, 3% transitionals. Stool was negative for parasites.

Stools were watery and green in color. Blood appeared in them during the second day in the hospital. On the third day following admission, the rash increased on both legs and was brighter than on admission. On the third day considerable bright blood and mucus were present in the stools, and the dorsum of the right hand became swollen and tender. A hemorrhagic rash appeared on the right elbow at this time. After six days in the hospital, the blood disappeared from the stools and the patient's general condition was improved. The vomiting continued for ten days gradually diminishing in frequency and intensity. At no time was there blood in the vomitus, and at no

time during the stay in the hospital did the urine show albumen, casts or red blood cells, although acetone was present for ten days notwithstanding large doses of bicarbonate of soda by rectum and by mouth. Bleeding from the gums and frequent epistaxis were noted during the stay in the hospital. The patient was kept quiet, given a bland diet of barley water, barley water and milk mixture, gradually increasing the nourishment as the vomiting diminished. Large amounts of bicarbonate of soda were given at first by rectum and later by mouth. Wet dressings of a saturated solution of magnesium sulphate were applied to the painful areas, and sodium salicylate was given internally in moderate doses. The temperature never rose above 100.4° .

The patient left the hospital cured of this attack.

This condition is more than a purpuric rash, it is more than an acute articular rheumatism, more than an acidosis. Under the name of Rheumatoid Arthritis, Dieulofoy states that "Rheumatoid purpura, or peliosis rheumatica is rarely associated with acute articular rheumatism. In the majority of cases, it is an association of purpura with pseudo-rheumatism, rather than of rheumatism with purpura." This form, he claims, which is more frequent in children than in adults, is especially prevalent in spring and summer, just as the polymorphous erythemata or erythema nodosum, with which rheumatoid purpura has many points in common."

"Pain, edema, and gastro-intestinal troubles are associated with the purpuric exanthem, as in the following example: A youth, after fatiguing exercise, or without apparent cause, is seized with pains in the joints and in the muscles, in the knees, ankles, calves, thighs and arms. The pains are reawakened by pressure, and are sometimes accompanied by slight effusion in the joints. At the same time, gastro-intestinal troubles, with vomiting of bile and food, pains in the stomach, colic and diarrhea, which is sometimes streaked with blood, supervene. The purpuric eruption appears during these symptoms, and are chiefly present on the lower limbs. They are sometimes symmetrical, and are usually petechial, but rarely ecchymotic."

A number of these cases have been studied by Osler, the characteristics of which have been summarized by him as follows, there may be

- (1) relapses or recurrences extending over several years,
- (2) cutaneous lesions which are those of erythema multiforme rather than of simple purpura,
- (3) gastro-intestinal crises—pain, vomiting and diarrhea,
- (4) joint pains or swelling—often trifling,
- (5) hemorrhages from the mucous membranes,
- (6) enlargement of the spleen—not always present,
- (7) nephritis, which is the most serious feature, and the most frequent cause of death.

A variable amount of albumin is usually found in the urine, while in the most aggravated cases, there may be all the symptoms of acute hemorrhagic nephritis. The intestinal crises, with or without enlargement of the spleen, may be present and recur for months before the true nature of the trouble becomes manifest.

This group of symptoms is probably a toxemia due to faulty metabolism which according to individual idiosyncrasy and dosage may affect the skin causing manifestations of the erythema group from purpura to angio-neurotic edema; or attacking the intestines or stomach may cause vomiting, colic, diarrhea or hemorrhage; or attacking the kidneys may cause acute and often fatal nephritis.

AN HISTORICAL REVIEW OF HEALTH DEPARTMENT ACTIVITIES.

Frank J. Monaghan, M. D.

Deputy Commissioner of Health.

New York City.

THE late Diedrick Knickerbocker, who wrote the History of New York, that remarkably authentic account of the early conditions in and about this great city of ours, which has enlightend so many generations of seekers after historical truth, began his great work by going back to the creation of the world, offering for the delectation of his readers the many theories advanced by philosophers and others to account for the existence of the world and proving beyond doubt or cavil, that the world was created, that it became inhabited, that the Dutch became a favored nation, that Hendrick Hudson, looking for a northwest passage to the Indies, stumbled upon the river which now bears his name and finally makes it clear that the Dutch founded here the City of New Amsterdam, because there was so much water here—which holds good today—and so were always reminded of their homeland and that this city was at last metamorphosed into New York, the wonder city of the world.

Such an illustrious example might well be followed by a reviewer of any historical activity, of even so small a fraction of the functional activities of the great City of New York, and while the Department of Health is only a fractional part of the Government of the city it is so important a part as to necessitate close and careful study and observation on the part of the student of this particular kind of history that in order to appreciate the wonderful blessings of these later days of this great department of the City Government, he must know and understand what took place in those earlier days when hygiene and sanitation were but little understood and medicine itself was nothing but a jumble of empirical practice, a blind groping in the dark, seeking the betterment of mankind, a surcease from men's physical ills.

He who delves into the history of matters relating to health, hygiene and sanitation will find probably the first interpretation of the laws of health in the Mosaic Law which taught, what animals should be used for food, how they should be slaughtered, and if diseased rejected. Rules for the conduct of the sexes and the observance of cleanliness in their person, homes and camps. These were of supreme wisdom and carried with them punishment and death to the disobedient and the reward of happiness and long life to the faithful.

Greece and Rome built aqueducts, gymnasia, baths and sewers, some of which still remain, and enacted health laws which later fell into disuse with the decline of these great empires.

Coming up to the year 1665 the great fire which destroyed so large a part of the City of London, following the terrible plague,

taught the people of that city the value of sanitation. The city was rebuilt on different lines with broader streets and larger houses and there was no return of the plague. And so if we will, we may move forward, step by step and see how the world has learned by sad and bitter experience to build little by little on that which has gone before to the great goal of a long life and the happiness of a reasonable exemption from illness during the greater part of that life, by a close attention to the laws of hygiene and sanitation and the great illumination which modern medical science has given to hitherto benighted mankind.

Governmental health activities bring these things to the people and accomplish through organized effort for all the people what no one of them, however wealthy or powerful, could accomplish alone.

The history of the earlier days of health activities in this city can be traced back to some extent to the year 1801, when we find a record of the trials of health officials, desperately endeavoring to the best of their then limited knowledge to save the people of this city from themselves and the apathy or ignorance of the law making bodies of that time. A study of this series of reports forces us to admire the wisdom and breadth of vision of some of these early health officials and we must conclude that if their admonitions had been heeded a much greater degree of health and comfort would have been given to the inhabitants of the city. Some of their recommendations were most admirable and time has shown that they were attempting to build along the lines which today we know and accept without question as correct lines of sanitation and hygiene. We know today in the light of modern knowledge that some of the ideas advanced were erroneous, but they attempted to show that cleanliness, personal and civic, was the great desideratum and we cannot deny today but this is the cornerstone of the temple.

We of the present day owe a debt of gratitude to these our predecessors, for through trials and tribulations, through bitter discouragements, striving without adequate power to overcome ignorance and apathy in both those who governed and those who were governed, they kept their faith in the ultimate triumph of light over darkness as regards health and sanitation and planted the seed from which has grown the great Department of Health of the City of New York of the present day, the activities of which may justly cause pride in the citizen, for of it may be said that it stands in the forefront of all such activities in the known world.

From 1805 to 1866 there were what was known as City Inspectors who presided over the health activities of the city and whose reports bring to us the knowledge of what took place in those early days. For instance we find that John Pintard who was City Inspector from 1805 to 1810 calculated the increase of population up to the year 1900, starting with the then population of about 75,000 and reaching the figure in 1900 of 5,257,493, a fairly good calculation not so far out of the way, as we know now, and Pintard himself wrote that the city might not be so fortunate as to reach these figures, but through possibilities of war, pestilence or famine might fall short of this estimate. Pintard reports for the year 1805 the large number of 600 deaths from yellow fever which considering the population at 75,000 makes an enormous death rate from this cause alone. Pintard's report was directed to Dewitt Clinton who was President of the Board of Health in 1805.

This particular City Inspector, John Pintard, served from 1805 until 1810. He seems to have been an energetic and zealous official and apparently attempted to the best of his knowledge and ability to correct the health conditions existing in the City during his regime. Regarding the facts of the increasing population of the City in which figures he seems to have taken special pride, it is interesting to note that he says: "From the data here furnished, the politician, financier, and above all the speculator in town lots (a subject, to our shame be it spoken, which absorbs every generous passion) may draw various and interesting inferences."

These with other matters reported by this official shows that he had great confidence in the future greatness of this City.

In 1806 a Committee of the then Board of Health made certain recommendations. These were: an ample supply of pure potable water; construction of common sewers; drainage of low marsh lands; construction of a masonry wall along the water front; the planting of trees and healthy vegetables; prohibiting the habitation of damp cellars; prohibiting the use, as dwellings, of certain houses where malignant fever had occurred; providing increased accommodations at Bellevue Hospital; providing for the erection of a private hospital for people of means, and also regulations relating to the quarantine of vessels coming from Southern ports during the months of July, August and September.

From this date up to the organization of the Metropolitan Board of Health in 1866, we find a succession of these reports showing the activity of these City Inspectors.

We note outbreaks of yellow fever and smallpox. Various theories are advanced for the nature of these diseases and the reasons for their epidemic occurrence.

We find in 1832 a report of an extensive outbreak of cholera.

In 1838 City Inspector Dunnell advocated maintaining a registry of births, and he grieves in his report that New York City is behind in this respect, and says the City of Philadelphia has possessed a register of this kind for some years.

The sanitary condition of the City causes grave concern in these reports, as causing an unhealthy state of the atmosphere and therefore productive of sickness, and an increased mortality. They desire to amend the municipal regulations for the improvement of the health and comfort of the inhabitants; they speak particularly of overcrowded dwellings; of the habitation of dark, damp cellars; the use as school rooms, of underground basement rooms of dwellings and churches; of the need of clean streets; the abolition of pig styes in the city; the removal of slaughter houses from the built-up parts of the city, the use of distillery refuse in feeding of cows; the drainage of marsh lands to eradicate malaria, and the establishment of public baths.

Little by little as we go forward, we find the progressive trend upward and onward, showing that these men were fully alive to the situation in their desire to improve conditions.

We note in 1845 and 6 that again the importance of birth registration was urged, and finally the enactment of a law providing for such registration was made.

We note the improvement in regard to vital statistics, and the regret expressed that there was no penalty attached in the law for non-compliance, and again in 1847 we find a note on the subject for the Nomenclature of Diseases, applicable to the United States. This

report was made by a Committee of physicians to the Medical Convention, assembled at Philadelphia this year, and the statement is also made that these statistics are invaluable.

Coming still further forward we find in 1857 the first mention of the term "Diphtheria," and from this time it is to be noted that this term became the accepted synonym for most of the diseases of the throat. Up to that time the terms denoting inflammation of the throat had been, inflammation of the tonsils, quinsy, sprue, ulceration of the throat, angina, etc. As diphtheria became the term in common use the statistics show the largely increasing number of cases of diphtheria, and the consequently decreasing number of cases formerly mentioned under other synonyms.

Most particularly interesting to us of this present day is the subject which we find mentioned by City Inspector Daniel E. Delevan who entered this office in 1858, but in 1859 and 1860 reports—Subject "Railcar Ventilation"—"Frequently from thirty to forty persons are crowded together in these cars, the doors closed, and with no possible escape for the foul air that is immediately generated. All complaints upon this subject are unavailing; to the managers gain is everything, the public health and convenience nothing. Many of our citizens prefer cold and exposure, from a stand outside the car, to the hazard of contagion from a seat within. Others again, necessitate themselves to long and fatiguing walks rather than encounter the risk arising from a confined and contagious atmosphere." And again, "These accumulating and ill-managed monopolies, which under the name of public conveniences, are the causes of so much discomfort, continue to be chargeable with the same grave objections urged in my last annual communication. They have become the paramount nuisance of the day. The poorest accommodations at the dearest price is the real practice, whatever may be the presumed rule. It is not for purposes of mere pleasure that so many of our citizens resort to these vehicles, but from absolute necessity. Our City has ordinances regulating the number of stage and omnibus passengers, and I would earnestly recommend that a similar ordinance be passed to apply to our city railroads."

This remarkable commentary made by an apparently painstaking official is surely worthy of the notice of those of us of the present day who are again passing through just such conditions as were described by Inspector Delevan. We see here that history repeats itself. What action was taken regarding this is not stated in these reports, but I presume that inhabitants in those days who found themselves in the same peculiar predicament as those of us who inhabit the city at the present day, lived in the hope of something better in the future, but we might possibly say without paraphrasing the Scripture, "How long, O Lord! How long."

It would seem by a perusal of this complaint by this public official that it was apparently not even necessary for the defiant traction interests of those days to find a complaisant high officer of the state to invoke for them the vague and nebulous "police power" so much spoken of today and so little understood. Perhaps this power has been since acquired in the progress upward and onward. It might be remarked in passing that it is almost a special prerogative of the Board of Health of this city as at present constituted.

In the year 1866 the Metropolitan Board of Health was established by an act of the Legislature along practically the same lines as

exist at the present time. This was done following a report by a citizen's committee, which report commenting upon the high death rate attributed it to overcrowded tenements, deficiency of light, insufficient sewerage, want of cleanliness in the streets and wharves, to a general disregard for all sanitary precautions, to imperfect execution of existing ordinances and the total absence of a regularly organized sanitary police. This report achieved the desired action and the newly created Board of Health with full power and authority began its labors and in the same year proved its work in the cholera epidemic which broke out in May of this year and was promptly stamped out through the intelligent handling and untiring efforts of the newly created Board. Here let it be noted this dread disease was eradicated by the use of disinfectants, etc., before the causative agent was known or the real mode of contagion understood.

During the year 1870 for the first time since 1822, the city was attacked by yellow fever. Dr. J. C. Nott discoursing upon the cause and spread of the disease suggested that yellow fever may be carried by insects and stated that this fever had apparently much in common with marsh fevers and thought yellow fever belonged to the same class and was similarly transmitted. Dr. Nott's statements are worthy of repetition as they show a remarkable prevision of what we today know to be true. He came so near exactitude that it is a pity he did not have at his command the means of proving his contention.

To quote Dr. Nott on this subject, "The difficulty, perhaps, arises mainly from the imperfections of our microscopes; and this is one which may never be overcome as we are seeking to penetrate infinity. Every new power added to our microscopes, brings to life more living molecules than any known before, and yet the imagination can place no bounds to the divisibility of matter organic or inorganic. It is possible that even insects may exist a million times smaller than any the microscope has yet reached."

And the world waited until after the Spanish War for Dr. Reed to show that the mosquito was the carrier and to have him defeat this terrible scourge of mankind in its very stronghold.

The logical conclusions of Dr. Nott show clearly the trend of mind of those who were investigating at that time the causes of disease, and this time may be considered the darkest hour just previous to the dawn of the era of bacteriology which has given to us the knowledge of the causation of disease, and at the same time has also given the weapon with which disease may be combatted.

It is true that previous to this so-called era of bacteriology some work along these lines had been undertaken by many scientists. For instance, we find anthrax which is one of the oldest diseases reported. It is recorded by Moses in the book of Exodus, 9th Chapter, 9th Verse, but it was not until 1849 when Pollender, while studying the blood of animals dead from anthrax discovered numerous rod shaped microscopic bodies which he claimed were the cause of the disease. This claim remained unsubstantiated until 1863 when Devaine announced that the bodies discovered by Pollender were bacteria and to this bacterium Devaine gave the present name of "*Bacillus anthracis*."

Devaine's views were not immediately accepted but others took up the work and in 1876 Dr. Robert Koch, in making his first contribution to bacteriology announced that he had been successful in proving the correctness of Devaine's work on anthrax. The question was then accepted as settled.

At the opening of this era the great scientists of those days became fully awake to the possibilities opened up by the acceptance of this theory.

That tuberculosis was a transmissible disease was accepted by a great many ancient physicians and conclusively proved by Villemin in 1865 but it remained for Dr. Robert Koch to isolate the microorganism. In 1882 he published his first communication describing the morphology, staining reactions, cultivation and the successful animal inoculation of pure cultures of the bacilli invariably found in tissues affected with tuberculosis.

From this point on, which practically makes contemporaneous history, we find the Department of Health moving along in the forefront of those who accepted the theories advanced by bacteriologists and putting these theories into practical application. Of course, this was not accomplished in a day. The ultra-conservatism with which these theories were approached did not permit of an immediate acquiescence in their acceptance, but today we know, without question, that this theorizing was correct, and those of us whose memory goes back thirty years can fully appreciate the wonderful blessings that have been bestowed upon the inhabitants of our city by the great advances that have been made in bacteriological research.

We have just passed through a great World War, with enormous aggregations of men such as the world has never before seen, crowded together in camps and on battlefields. Thanks to the wonders of bacteriology the diseases which decimated armies in other days, while not entirely extinct, were of a comparatively negligible quality and quantity.

Typhoid fever which has destroyed more lives in the days gone by than bullets have, thanks to the inoculations insisted upon while not entirely absent in the category of diseases, almost an unknown disease amongst the American forces, and during this time of tremendous upheaval when thousands of soldiers and strangers pass through our city, typhoid fever never assumed any particular proportions. Of course, it must be noted that part of this was due to the most excellent supply of water furnished to our city and to the safeguards thrown around the production and handling of milk and other supplies by the Department of Health. This is a record to be proud of.

Diarrhoeal diseases in children have always been the cause of great mortality and the results achieved since the beginning of the era of bacteriology have been most remarkable. It is roughly estimated that today only one child succumbs to these diseases where fifty years ago seven children perished.

Many factors go to make this desirable end. Today we have pre-natal care, baby health stations with their trained attendants scattered throughout the city, the inspection of the milk supply in the country as well as in the city, the insistence upon the pasteurization of milk which has done more than any other one factor to accomplish the purpose, the carrying out of the latest ideas of sanitation, of pure water, of proper light, proper heat and ventilation. All of these precautions being taken under the supervision of the Department of Health, coordinating all these activities have accomplished more in saving the lives of children than anything that has been accomplished in all the ages that have gone before.

This great achievement alone would amply compensate for all energy and money expended.

Another thing which has greatly assisted the decline in the mortality of children, diphtheria antitoxin, was first produced in this country in the Laboratory of the Department of Health of this city. Those who recall the conduct and treatment of this terrible scourge of children before the advent of this new and powerful weapon, know with what misgivings it was first used and how when it as proven beyond doubt that it was indeed efficacious, how gladly discarded were the futile weapons that had proved so useless in this dread warfare and how was acclaimed another victory over the dread destroyer of youth.

One look at the mortality chart for children for the past thirty years showing the steady downward curving of the line brings with it a gratification beyond words to express.

The report for the year 1866 of the Board of Health contains much that is of interest on this subject. It states in no uncertain terms, "The mortality among children in American cities is frightful. One-third die in the first year and one-half before the age of five, but there are signs of improvement, conceive of the misery avoided, pauperism prevented, the diminished tax upon the world in the way of charities to support the destitute poor, the increased industry added to the nation from such a multitude of healthy and productive laborers and the future value of a healthy progeny from so enlarged and vigorous a stock. Surely we must accept those as words of wisdom as true today as when they were written more than fifty years ago.

Again this report says, "A single glance at such results shows the value of sanitary knowledge and elevates hygiene to a science which is destined to do more good than all the medicines ever discovered or administered to suffering humanity. This subject must arrest the attention of statesmen and legislators, for upon the observance of these laws depend national wealth, power and greatness and upon their neglect, national ruin and decay." And so it would seem that according to these findings the panacea for all physical ills at least was to be found in attention to sanitation and hygiene. We must admit that there is a considerable element of truth in the statement, but it falls somewhat short of what we know in the light of present day knowledge to be the more or less exact state of things.

The facts regarding children causes grave concern at this time. They speak of the children as "the hope of the nation" and are humiliated at the great mortality and seek for an explanation. "It would seem," they say, "that we can succeed in raising domestic animals, but fail in rearing our own children." What is the reason for this was the answer they sought. Was it from hot weather, filth and its concomitants which combined originate the thousand odors which vitiate the atmosphere or a constitution in which disease was earlier concealed, or the rule that the strong alone can survive.

To quote again: "From the neglect of sanitary precaution, two hundred years ago, the cities would have been depopulated, if it had not been that they were constantly rejuvenated by new blood from the country, and it is a fact that even now in our huge cities, this source of vigorous renewal is their salvation."

What truer words could we find than those, "All suffer from neglected causes of disease, but the poor pay the heaviest penalty." Their labor is their only capital and the whole of it is often sunk in the contest with disease."

We study history to know what has gone before and reports such as this show us exactly how our predecessors thought and in this

report we have great wisdom that can do only good if reiterated. So we find in another paragraph that "the advancement of medicine as a science proves that remedies given in the old empirical manner were useless and injurious. The student now studies the action of nature in the various functions of the body in health and disease and the study of the causes of disease. To study and avoid the causes is true sanitary science, and to medicine it offers a glorious future." And still we find and quote one more of the philosophical gems of thought, "No individual can succeed in any great reform or even be secure in his own personal elevation unless the race advances with him, and this cannot be expected so long as the majority are overworked and underfed, and compelled thereby to neglect moral improvement and the cultivation of the intellect." It was in this spirit of altruistic philosophy that these men approached their task and placed upon record their reasoning upon the problems of their day and within the great limitations placed upon them builded the foundation for that great superstructure, the present day Department of Health. What if they could know that today the great saving of human life is to be found in the ages of infancy and childhood and what they so greatly desired had at last become an established fact.

With the era of bacteriology came the establishment of the Willard Parker Laboratory, the work of which is so well known as to make it unnecessary to dilate upon and the work and maintenance of the five great hospitals under the control of the department comes within the same category. So too do the other more recent additions such as School Medical Inspection, the inspection of food and drugs under a special division and still others of lesser amount which add their quota to the general good, and assist in various ways the work of this Department.

Living the high tension life that is lead today in this city particularly the events of yesterday are soon forgotten and the great influenza epidemic of 1918 and 1919 is a thing of the past, but the history of the Department records the terrible account of the loss of human lives in this great disaster and as a concomitant of the world war then raging will be commented upon by future reviewers, even as we comment upon the history of the past.

This page in the history of the Department reads like a chapter from Defoe's "The Plague in London," and such comment has been made. The wildfire spread of the contagion, the dread fatality of the invasion of whatever organism it is that causes its ravages, the attacks upon entire families at once causing a lack of nursing care and so increasing the chances for a fatal ending, the long lines of dead being carried to the cemetery there to be unburied for days, for lack of help to inter them and finally to be interred in trenches dug by steam shovels and in one instance by men from the Department of Street Cleaning of this city, make a story that might have appeared in ancient history and will probably be so considered by the commentators of fifty years hence, whose greater enlightenment, thanks at least to some extent to present day labors, may show the weakness and the errors which afflict us today, even as we look back compassionately upon those of fifty years ago who struggled as desperately against the common enemy and as we know and acknowledge not wholly in vain.

So we come to the year 1920 which now has become a matter of history and so comes within the scope of the review. A perusal of the report of the Sanitary Division alone is interesting in showing the

changing conditions under which we live and the unavoidable necessity for assuming new tasks as the need therefor arises. And then as if to show that there is really nothing new under the sun, in this year, it was found that the oldest known disease mentioned in history, as spoken of earlier in this review, the disease known as anthrax, was once again claiming attention, causing the adoption of another section of the Sanitary Code, governing the manufacture and sale of all brushes such as shaving brushes, etc., through the medium of which this dread disease might be transmitted.

For the first time in the history of this city it became necessary for the department to consider the possibility of an invasion of Bubonic Plague. Somewhat early in the year notification of the entrance of the plague into some of the Gulf ports was received and immediate action was taken by a thorough investigation and surveys of the waterfront and all places where rat breeding and rat harborages were likely to exist. A campaign of "Rout the Rat" was begun and regulations were made regarding the fumigation of ships. Much has been done to safeguard the city and is still being carried on. The extremely great extent of the waterfront and docks of this city makes the inspection for this purpose one of great magnitude and calls for the cooperation of all citizens and commercial interests especially of that part contiguous to the waterfront. As the disease is transmitted by fleas that infest rats and as is well known rats may travel for long distances inland the great desideratum is to destroy the rat by any and all means, and when it is considered that the damage caused by the depredation of rats on ship board, docks, wharves and storehouses, it may readily be appreciated that the rat problem may be regarded as an economic one and not a health problem alone. The destruction of rats so particularly urged as a safeguard against Bubonic Plague will result in the saving of many thousands of dollars worth of property to the inhabitants of this city.

The presence of Typhus in Europe, it has since found entrance into this city, caused a campaign to eradicate, what is now called in common parlance, the cootie. Various inspections of lodging houses, laundries, barber shops were made and at the present time a special force is being maintained at all places of entrance into the city to inspect all immigrants coming from infected ports and countries, and in this activity much good has been accomplished.

During October of last year still another new duty was forced upon the department, it being found that there was an acute coal shortage due to a variety of reasons.

A coal relief division was organized and working with representatives of mine operators and dealers, the emergency was overcome by thorough and systematic handling of the matter. This action, coupled with the mild winter, saved much suffering and sickness and prevented the threatened necessity of commandeering coal supplies.

Another addition to the work of the Department was made when Section 225 was added to the Sanitary Code extending the scope of the department's activities in the enforcement of the heating of living premises. This has entailed an enormous amount of work and was done under the theory that the comfort of the people is allied with its health and that the department's experience during the influenza epidemic proved that damp, cold rooms exercised a considerable influence upon the lowering of the vital resistance, therefore making the person concerned more susceptible to the disease.

During the year 1920, the question of overcrowding in the homes of the people owing to the house shortage came under observation as a health menace. A comprehensive survey was made and the results when tabulated were made the subject of a report to the State Legislature.

The question of clinical thermometers was taken up and found to warrant interference. Accordingly a new section of the Sanitary Code was drafted covering this subject and incidentally adding a new activity to the large number already coming within the scope of this department.

These are but a few of the many activities actually carried on, but these suffice to show the changing condition of affairs and how this department which takes its duties seriously arises to meet the various emergencies and strives to acquire for all the people a greater or lesser cessation of their physical ills by attacking from all angles anything whatsoever of moment which may assist the inception or spread of disease.

It must not be supposed for a moment that this department arrogates to itself all the honor and glory for the more or less successful fight against disease which has been carried on for generations in this city, on the contrary, it well recognizes the fact that the department has been only one of the means towards the greatly desired end, and that without the aid and assistance of the medical profession of this city no such forward strides could possibly have been made.

Elsewhere in this review is quoted, "No individual can succeed in any great reform, or even be secure in his own personal elevation unless the race advances with him." This is as true of an organization such as the Department of Health as of an individual and even more so, because it (the department) must renew its strength and derive its means of sustenance from those narrower limits which bound the profession of medicine only, so that if the profession of medicine had not advanced during the period which has been here reviewed, the Department could not have advanced beyond those limits no matter what power or authority had been given to it.

So the advance has been mutual and we know and are assured of this when it is seen that in looking at the roster of the department for all these years that it reads like the roll of fame of the medical profession of this city. Name after name of the most prominent physicians of this city is found in the archives of the department proving that the profession and the department moved steadily forward step by step up to the present day, not separately but together and that this is as it should be, even as it must be, is a self-evident fact and admits of no other interpretation or denial. There may have been at times some regrettable friction, through misunderstanding, over zealousness or perhaps over officialism, the "insolence of office" that Shakespeare has told of may have and possibly will be found here as in all governmental functions but it is not "so nominated in the bond."

Nowhere in the history of health activities of this city can there be seen any positive encroachment of the department upon the field of the physician himself, where there has occurred the carrying out of some new activity or a readjustment along different lines of an established function, the line of demarcation has been at times somewhat difficult to establish, but a definite usurpation of the rights and privileges of the profession has not occurred.

The changing views of social conditions as we see them today

show us a return to paternalism and the attempt to inculcate morality through statute law alone, and if morality, why not health, its hand maid, is the question which next suggests itself. To the writer of this review the way to accomplish our purpose, if our present form of government is to continue, and he who is imbued with true American ideas and has the true, indomitable spirit of democracy which those ideas teach, prays it shall continue, is to work and hope collectively and singly for a survival of those ideals by any and every means, so that there may be continued into the future the unbroken line of mutual progress, as in the past, working forward for the betterment of mankind not through the dictates of statute law, but through a correct understanding of the rights and privileges of each and all, and so may it continue to reach far into the future, even into infinity.

PROGNOSIS IN NEPHRITIS.*

Henry G. Webster, M.D., F.A.C.P.

Brooklyn, New York.

IT is likely to be objected, as soon as this title is announced, that there is so broad a divergence of opinion as to what constitutes nephritis that a generalization is impossible. In a measure this is a reasonable objection inasmuch as almost every recent writer of note has thought it necessary to formulate his own classification and to assign a nomenclature as varied as it is picturesque. One has but to glance at the accompanying chart to recognize this diversity of terms. But however opinions may vary as to an appropriate classification, this fact remains—the individual patient who presents himself for treatment constitutes the rational standard for clinical judgment. The practical question is not whether he is suffering from acute nephritis or from sub-acute nephropathy, or from chronic nephritis with edema, but if he will recover from his present condition and how long he will live. Whatever views one may entertain as to the appropriate term describing this individual's condition, all clinicians will agree that it is the individual who is to be treated; the degree and thenature of his involvement at the time he presents himself may be called by different names, but the problem is the problem of the individual. As one acquaints himself with the various systems of classification he is impressed first of all with the fact that each writer assumes a different standpoint toward what constitutes nephritis. Some regard acute nephritis as a condition that includes all those self-determining cases which are the immediate accompaniment of bacterial inflammation or poisoning by such substances as mercury. Some regard these merely as passing irritations which they do not dignify as true nephritis; and still others frankly confess themselves unable to judge whether such cases are negligible because they are likely to disappear with the disease which has caused them, or important because they may constitute the starting point of a progressive inflammation of the kidney. How is one to judge in any individual who presents the urinary evidences of an inflamed or diseased kidney, whether or not he is dealing with a curable or an incurable case? It is no part of the present dis-

* Read before the Brooklyn Society for Internal Medicine, March 25, 1921.

cussion to attempt even a synopsis of the anatomy, physiology and pathology of the kidney, although a thorough understanding of all that is known of these organs and their function is essential to a proper conception of treatment. It is taken for granted that these essentials are familiar. But it must be borne in mind that the kidney is not only a highly specialized organ with certain definite functions, but is also an integral part of the cardio-vascular-renal system. Therefore, in determining changes in the kidney, the corresponding changes in the heart and blood vessels must always be taken into account. And symptoms arising from changes in any member of this group must be considered in relation to the effect which they have upon the other members and upon the body as a whole. In analyzing the case of any patient in whom the presence of casts, or albumen, or blood elements in the urine has attracted attention to an inflamed kidney we must consider not only the chemical and microscopical condition of the urine, but the blood chemistry and the subjective and objective symptoms of the pa-

COMPARATIVE TABLE OF SYNONYMOUS TERMS *

Chr. Passive Congestion	Stasis Kidney
Acute Nephritis (Acute Bright's)	Acute Diffuse Glomerulonephritis (Acute Inflammatory Nephritis with Edema) Acute Interstitial, Nonsuppurative nephritis (Barker, Volhard & Fahr) plus Nephroses (special) Poisons-mercury, (Vol. & Fahr) chromate, etc. Kidney of Pregnancy
Chronic Nephritis (Chronic Diffuse Neph- ritis, Chronic Bright's)	Diffuse Glomerulonephritis Sub-acute or Chronic "Large White Kidney" Chronic (Terminal stage) "Small white kidney" Chronic Parenchymatous Nephritis Chronic Focal Glomerulonephritis
Chronic Interstitial Nephritis (Chronic Bright's)	Diffuse Arteriolar Nephropathy (Bar- ker) (with arterial tension and with- out renal dropsy) Primary or Genuine Contracted Kidney Chronic Hypertensive Nephropathy Chronic Arteriosclerotic Kidney (Volhard & Fahr) Benign Hypertonia — Pure Arterio- sclerotic Combined form (with Glomerulone- phritis)
Amyloid Kidney	Classed with Nephroses as are also the transient albuminurias.

* Reproduced by permission from *Diagnostics of Internal Medicine*, by Glentworth R. Butler, M.D.

tient as well. It is upon the proper estimation of all these factors in their relation to one another that a proper appreciation of the present state and future probabilities of the individual depends. Because in many cases the blood pressure is high, one must not fall into the fallacy of regarding high blood pressure as an essential symptom, because many fatal cases show low blood pressure. Because albumen and casts are usually present, one must not feel too well assured of a harmless condition if albumen and casts are not present, for fatal cases with this finding are by no means rare. Because extensive edema is found one should not despair of the patient's condition because such cases sometimes clear up completely and make a clinical recovery. It is unnecessary to multiply such exceptions, for they are familiar to every clinician. The point is to correlate all the symptoms so as to gain as true a perspective as possible. To revert to my introductory remark, how are we to judge whether the patient who presents casts and albumen is a subject for present anxiety or no? For purposes of study it is well to group cases according to the length of time that symptoms have been present; according to the age of the patient; according to the presence of disease in other organs; and according to the intensity of the symptoms. This is an extremely loose and elastic method, but it at least serves as a point from which to start. Thus, the patient is a man of 60 with evident hardening of the arteries, hypertrophy of the heart, high blood pressure, and his urine is fairly profuse, frequent at night and of low specific gravity as well as containing more or less albumen and occasional casts. One instinctively places such a case in the probable category of those who have been suffering for a long time with progressive destruction of the kidney and would quite naturally expect to find that the blood chemistry shows a decided increase in the urea nitrogen and creatinin, and looks for a low phthalein and will anticipate the comparatively early appearance of uremic symptoms. Again, one sees a boy of 14 recently recovered from scarlet fever, who has suddenly become edematous and comatose, with convulsions. Here one is confronted with the necessity of making a decision between a terminal condition dependent upon a rapidly progressing insidious degeneration of the kidney or the results of an acute congestion, holding out the hope of a restoration to ordinary health. Midway between these extreme pictures one may place such a symptomatic complex as this: A woman of 35 who complains of frequent headaches, occasional nausea, anorexia, occasional slight dysnea, occasional puffiness of her ankles, moderately increased blood pressure, apparent anemia, and urine that shows a variable amount of albumen and occasional casts. Around these three general types one may group the bulk of cases of kidney inflammation. There is one distinct picture that I think should be finally excluded from among the nephritides where it has long been placed, and that is the considerable group of people of advanced years who show a constant high blood pressure, ranging about 200, with the passage of large amounts of watery urine of low specific gravity containing an occasional trace of albumen. Their arteries are hard and tortuous, they show more or less compensatory cardiac changes, they have some evidences of nervous instability such as broken sleep, they are easily tired, but nevertheless they live on to a ripe old age in

spite of their disability. They constitute the group of benign or essential hypertonia, or arteriosclerotic kidney.

The symptoms upon which a full diagnosis of any variety of nephritis must be made are rather widely inclusive. They may be grouped together according to the region affected. These include urinary findings, functional determination as estimated for both blood and urine, cardio-vascular symptoms, ocular symptoms, gastro-intestinal symptoms, symptoms referable to the nervous system, and to the skin. In addition one must search for causes such as focal infections, dietary habits, infectious diseases, exposure, occupation and the like. There seems to be a not infrequent failure to appreciate the frequency with which anorexia, nausea, vomiting, and intestinal gas are associated with nephritis. They are often overlooked, whereas they should be regarded as definite finger posts pointing to the kidney as well as to the gastro-intestinal system. Such changes in the nervous system as dizziness, restlessness, headache, drowsiness and mental irritability point to disturbance of the central nervous system, while some of the special senses including the ears and eyes must not be forgotten. Tinnitus aurium suggests auditory disturbance, while that wide range of ocular disturbances known as scotomata are frequent in the eye. Ocular symptoms themselves include hemorrhages into the retina, retinitis (which is of much more serious import) and changes in the nerve suggesting edema on the one hand and starvation on the other. The color of the skin often is enough to declare the disease to the practiced eye. The skin becomes dry and scaly or it shows a glazed, tense, puffy condition when edema is present.

Dyspnea indicates either a cardiac complication or a central nervous toxemia. This is especially true of that type which appears as an alarming paroxysm coming on during sleep. The tongue is often suggestive of chronic nephritis. One type in particular, in which there appears a filmy white coat on a tongue which is smaller than ordinary, and is reddened at the edges; while the dry, raw beef appearance of the so-called typhoid tongue is not infrequent in the terminal stages. Hardened and tortuous arteries, hypertrophy of the heart, and the chain of systematic changes which accompany them may be either the cause or the result of renal insufficiency.

Renal edema is a symptom of recognized importance, but is dependent upon conditions that have not as yet been satisfactorily determined. This statement holds particularly true for those evidences of localized edema which one recognizes as of renal rather than cardiac origin. Why the region about the eyes and the face should become puffy has not been explained. It may be said, in passing, that the degree of edema does not measure the severity of nephritis, as a very extensive swelling may accompany an acute nephritis which subsides rapidly leaving no apparent trace, while no edema may be present in an early fatal case. Renal edema differs from cardiac edema by this tendency to localization—the cardiac type usually appears in the dependent portions. It is probable that some of the delirium of nephritis can be explained by localized edema of the brain. But it has also been held that some irritant, the nature of which has not yet been demonstrated, is the essential cause both of brain symptoms and of localized edema. It was at one time thought that methyl guananine could be held

accountable for the group of symptoms including edema, convulsions, headache, nausea, and arterial hypertension, but recent publications contain no confirmation of this fascinating hypothesis. In estimating changes in edema it must be remembered that the amount of fluid can be best determined by watching the patient's weight as it is perfectly possible for the swelling to shift its position without any actual loss in the amount of fluid present.

Blood Pressure in Nephritis. It seems to be a fairly widespread notion that a definitely marked increase in blood pressure regularly accompanies inflammation of the kidney. While the value of increased blood pressure as a diagnostic and prognostic sign is clearly recognized, the fact must not be lost sight of that comparatively low blood pressures are often observed in severe nephritis. One often finds a very considerable increase in blood creatinin and blood urea nitrogen with the excretion of a diminished amount of urine containing albumen, casts, and not infrequently blood elements, with the evidences of mild uremic irritation, but with a blood pressure abnormally low for the average healthy person of corresponding age. I have in mind a case of this description occurring in a man of 56 in whom all these conditions are present in a marked degree, but whose extreme systolic pressure has not exceeded 138, and whose diastolic pressure averages about 70. In this case the heart sounds are of a fair quality, there is no definite hypertrophy, and the arteries, though slightly tortuous, are not especially hard. The explanation seems to lie in a degree of asthenia resulting from inability to assimilate an adequate amount of food, and in the absence of any specific irritant to the adrenal and vasoconstrictor systems. On the other hand, in cases of puerperal eclampsia, actual and threatened, there is a disposition to place great emphasis on an increasing blood pressure which is being more and more emphasized in writings on this particular subject.

Changes in the Urine. When the normal frequency and amount of urine becomes altered, especially when the amount passed at night increases, kidney inflammation is to be suspected. Diabetes and enlargement of the prostate are to be excluded. The former is simple, but it is not always easy to judge whether, in a man who is past middle life and who has a moderately enlarged prostate with albumen in the urine, the prostate or the kidney is the principal offender. The amount of albumen and the number and variety of casts are not criteria of the severity of the kidney inflammation, but in general it may be said that urine of a lower specific gravity with little albumen and few casts is more apt to indicate slow sclerotic changes, while the larger amounts of albumen and casts in the urine of higher specific gravity suggest a more diffuse inflammation. Blood in the urine in appreciable amounts may be due to severe diffuse bacterial infection attacking the glomeruli particularly, or it may suggest congestion without direct focal infection. If temperature is present the suspicion of a general streptococcus infection scattered throughout the kidney is to be borne in mind. Microscopic bleeding may persist over long periods. The presence of renal epithelia has been claimed as a definite indication of the nature and extent of the kidney involvement—a claim that I believe is unfounded. Certainly no prognostic value attaches to it.

Permeability of the Kidney. It is now generally accepted that

the permeability of the kidney to certain reagents of which phenol-sulphonephthalein is the most conveniently applied, is of very great prognostic value in determining not only the type of nephritis which may be present, but in estimating the probable duration of life. A generous experience extending now over a number of years coincides with that of most recent writers, and indicates that as the percentage of phthalin excretion falls, so does the expectation of life. Within a very short time I have observed a woman of middle age who, apart from a little dysnea on exertion, definite tortuosity of her arteries, and urine of low specific gravity which was voided more at night than during the daytime, showed no evidences of distinct nephritis except that her phthalin output was less than 5% for the two-hour period. The prognosis of an early fatal outcome was given. She died within three weeks, and at autopsy her kidneys were found to be replaced by two small, hard, white bodies not much larger than Spanish chestnuts. Of coincident value are the amounts of blood urea, blood urea nitrogen and creatinin found by chemical examination of the blood. These substances have received sufficient study so that definite value may be attached to them. It is safe to say that any increase of the blood urea above 30 millegrams per 100 cc. or of blood urea nitrogen above 15 mg., or of creatinin above 2 is of serious prognostic import, provided that the examination of the blood is made after a sufficient fasting period to be sure that the increase in the nitrogen is not dependent on recent dietetic causes. The so-called two-hour test which serves to show fixation in the specific gravity and urinary chemistry is helpful in prognosis.

Focal Infection. The focal infections are of great importance in causing inflammation of the kidney cannot be gainsaid. Possibly the tendency is to suspect such a cause too often, but in any case, especially in long-standing conditions where the indications point to a continued mild form of irritation, abscessed teeth, chronically inflamed tonsils, cholecystitis, sinus infections and the like must be diligently sought for. I recall a case of a man of thirty-three who for several years had endeavored to get life insurance and had been refused because of a persistent cloud of albumen and an occasional cast. Following the removal of two patently abscessed teeth the albumen and casts disappeared and he was finally accepted by an insurance company. There has been no recurrence of symptoms for five years.

It is recognized that the argument *post hoc propter hoc* is a most fallacious one, and it is equally certain that human beings instinctively strive to find something in the past which may serve to explain present happenings; but nevertheless the frequency with which albumen, casts, and sometimes blood appear in the urine following acute infection of the tonsils and pharynx, points very strongly to the definite relationship between these conditions. In point of fact the presence of members of the streptococcus group not infrequently can be demonstrated in the urine in cases of this sort.

Another cause for inflammation of the kidney may be found in certain gastro-intestinal conditions, some of which are seemingly dependent upon infectious causes, while others seem largely if not entirely metabolic. This is in itself a large field for investigation, containing many problems that have as yet no satisfactory solution. For instance, why do we so often find the combination of physical depression, disturbed nervous system and trifling gastro-

intestinal disturbances with the presence of indican, calcium oxalate and albumen?

In estimating the probable outcome of any given case one must balance the patient's age, previous health, urinary findings, functional capacity, and the apparent extent of the involvement. Possibly one or two illustrative cases will afford a clear summary of my meaning.

Case I.—Man age 56. Without previous intimation of a nephritis and following an acute pharyngitis, he began to pass blood in the urine in such quantities that it was a distinct red. Chemical and microscopical examination showed a large amount of albumen, hyaline and granular casts, pus and blood elements. The specific gravity averaged about 1020. Because of the color a 'phthalein report was unsatisfactory, but seemed fairly generous. Physically the patient complained of weakness, anorexia, morning nausea and somewhat later, pains in the legs. The skin was dry, tongue glazed, and his sleep was much disturbed. His blood chemistry showed urea nitrogen 65, creatinin 7, and sugar 0.35. His blood pressure in the beginning was 138 over 80.

A diagnosis was made of an acute diffuse streptococcus infection coming on in the course of a low grade nephritis of long standing, although the low blood pressure, soft arteries, and apparently normal myocardium did not altogether square with the diagnosis. His course was distinctly downward, until by the end of the second month he had lost fully fifty pounds in weight, developed aphonia, marked insomnia, persistent nausea, some tremors, and his blood chemistry had risen to urea nitrogen 105, creatinin 12, and sugar 0.35.

Vigorous baking in a Sprague oven induced fairly free sweating at this time, and the treatment was continued for four applications until the temperature had been brought up to nearly 400. The patient's nervous condition then made it necessary to abandon the baking, and a few hot packs were tried. From this time on there was a noticeable improvement in the clinical manifestations, and now at the end of four months the urea nitrogen has dropped to 261, the creatinin to 1.5, and the sugar to 0.1. There is no blood in the urine, but its character has completely changed. The specific gravity is 1.003 corresponding to an output of 3 litres. There are 3 grams of albumen per litre and numerous casts.

This case illustrates the grave difficulties of prognosis. The patient's age, the acute onset with the preliminary infection, and the active hematuria made a hopeful prognosis reasonable in the beginning. The discovery of the unusually high nitrogen content and creatinin then completely changed this prognosis to a most unfavorable one which was apparently borne out by the patient's clinical progress. Subsequent reduction in the blood chemistry, and a steady improvement in the patient's physical condition during the past month now make it seem likely that he will be restored to a fair degree of useful activity. The high blood sugar indicates retention and sugar tolerance, probably due to renal changes.

CASE II—Boy 13 years old, entered the Methodist Hospital with marked general edema and urine showing much albumen and a variety of casts. The urine averaged a little over a litre with a fairly high specific gravity, about 1,022. There were no cardiovascular symptoms. He showed no change under rigid dietetic

treatment, and his edema continued to increase until he looked much more like a fat pig than a human boy. An Edebohl decapsulation operation was considered at this time, but was abandoned and baking substituted. He was baked every other day, the temperature being gradually raised until at the end of a month the edema had entirely disappeared, the albumen was greatly diminished, and the general condition markedly improved. He then left the hospital and reported back at the end of six months when he had no urinary symptoms, no edema, and seemed well in every way. Two badly infected tonsils were removed at this time, and the boy was seen six months later, when he continued to be in good health.

This case seems to fall under the classification of nephrosis. The probability is that the prolonged absorption of toxins of the infected tonsils explains the kidney irritation which had gradually increased until relieved by the baking, and finally disappeared on the removal of the infected tonsils. While the early prognosis seemed most discouraging, the eventual clearing indicates how conservative one should be in giving a hopeless prognosis in any case.

CASE III—Two clinically similar cases are offered for comparison—the one a woman of 54, the other a woman of 45. The clinical findings were identical. There was the moderate output, something over a litre, of urine of moderate specific gravity, containing albumen and casts. There was an increased blood pressure averaging 160. There was a low 'phthalein, averaging in the older woman 6, in the younger woman 18. Both were markedly edematous; both were slightly delirious much of the time, and both had changes in their cardiac sounds suggesting definite muscular disturbance. The younger woman was markedly anemic. Treatment was practically identical in both cases though neither responded well to hot packs. But the older woman grew progressively worse and died; and the younger woman, after some three months, so far improved as to return home and take up her active household cares, though she still has casts and albumen. The difference in the two was the difference in the 'phthalein which was here of definite prognostic value.

In closing I am painfully aware of the inadequacy of my presentation of this important subject. I must plead, however, that its importance must serve as an excuse for bringing it up in this brief and sketchy fashion, particularly as there is still abroad a very evident fatalistic notion that Bright's disease is a foregone conclusion, and that there is not much that can be done to relieve it.

CHRONIC SPLENOMEGALIC HEMOLYTIC JAUNDICE.*

Hartwig Kandt, M. D.

Brooklyn, New York.

BEFORE reporting this case, it might be of advantage to give a brief outline of what is known concerning the etiology and pathogenesis of this interesting disease, which is variously called hereditary Icterus, Congenital Acholuric Icterus of Minkowsky and Chronic Splenomegalic Hemolytic Jaundice. The latter term seems to be preferable because of its descriptiveness and was adopted by Rolleston in his article on this disease in the third volume of Oxford medicine. I quote freely from this.

Definition. A chronic non-obstructive jaundice of varying intensity with splenic enlargement and little or no enlargement of the liver. The urine contains urobilin, but no bile. Stools are of normal color, there is no biliary toxæmia nor hepatic inadequacy. The jaundice is due to the liberation of the hemoglobin of the red cells by hemolysis and this in turn is believed to be converted into bile pigment without the help of the liver.

Etiology. The condition may be congenital, without being inherited, or it may be inherited but not appear until a long time after birth. Syphilis seems the causative factor in many cases, but not in all. The important feature is the diminished resistance of the red cells and the consequent tendency towards hemolysis. The cause for this fragility is not known. It is not entirely due to the spleen, as might be concluded from the improvement which follows splenectomy. This is illustrated by a case in which the same fragility existed twenty-seven years after splenectomy. This fragility has been ascribed to insufficiency of the bone marrow or to some inherent vice of metabolism. The hemolysis is not due to a hemolysis in the blood, but probably to the phagocytic endothelial cells of the spleen, which not only produce hemolysis but help in the transformation of the liberated hemoglobin into bile. Whipple and Hooper have shown experimentally that hemoglobin can be rapidly changed into bilirubin in the circulation without participation of the liver. This is apparently due to the action of endothelial cells. Bilirubin has been found in the pleural cavity in cases of old hemothorax. The jaundice is therefore regarded as hematogenous and due to the formation of bile pigment in the circulation without any participation of the liver.

Morbid Anatomy. The extra and intrahepatic bile ducts are free from inflammation and obstruction. Microscopically the small bile ducts are not blocked and there is no evidence of increased viscosity. Small pigment calculi and gall stones are found frequently. The blood shows fragility; that is diminished resistance to hemolysis of the red cells when exposed to hypertonic salt solutions. The red cells are smaller than normal and when stained show basophilia and usually polychromatophilia. The serum contains bilirubin, but no bile salts or free hemoglobin, is hypertonic and shows a diminished cholesterol content.

* Read before the Brooklyn Society of Internal Medicine, March 29, 1921.

Treatment. Excellent results follow splenectomy. Elliott and Kanavel have collected 48 cases with only two deaths. In the great majority of these cases the jaundice disappeared within two weeks. Good results are claimed for X-ray treatment of the spleen.

Mrs. J. B., married, age 36, a French Canadian, consulted me in 1918 for jaundice and drowsiness.

Family History. Mother living and well at 70. Father jaundiced from birth, died of pulmonary tuberculosis at age of 48. Father's brother jaundiced, but living and well at age of 70. This brother has one daughter who is jaundiced, but strong and healthy at age of 36. Father's aunt was jaundiced, but always in good health and the mother of two white children. Of the patient's two sisters and five brothers, only one was born jaundiced. He is now 30 years old, weighs 200 pounds and never loses a day as a mill worker. To sum up, there were altogether six jaundiced individuals in this family, all on the father's side.

Previous Personal History. Patient has been told that she was jaundiced at birth. She has seemed more or less jaundiced ever since. In spite of this she enjoyed good health during her childhood with the exception of scarlatina and several spells of intensified jaundice. At the age of 14, after a hearty meal she fell into a deep sleep. When roused her body was so swollen that her dresses had to be cut off her body. The next morning she had severe epigastric pain and vomiting with deepening of her jaundice. This attack lasted one week. A similar attack six months later and since then every winter, always accompanied by deep jaundice and fever and followed by marked loss of weight.

Menses began at 19, pregnancy at 22, got very yellow, could not void, became very sick, was aborted at six months, no pregnancies since.

Four years later, while at New Bedford, Mass., in the winter of 1908, patient was seized with one of her attacks of epigastric pain, distention, vomiting and deep jaundice and had a laparotomy performed at St. Luke's Hospital of that city. The careful record of patient's stay at that hospital, which was kindly furnished to me in copy, does not suggest that the hemolytic character of the jaundice or its familial type was recognized. A description of the operation follows: High right rectus incision extending at upper end upwards and inwards towards ensiform. Liver found to be very adherent and enlarged, extending down half the distance to the umbilicus. No gall bladder found. Both hepatic ducts traced to liver, no cystic duct made out, common duct of normal size, no stone discovered. Spleen enlarged and adherent, enlarged mesenteric glands found, stomach, pancreas and gut normal. Wound closed in the usual way and healed by first intention. Recovery uneventful except for considerable reaction following the hypodermic administration of bichloride of mercury, which had to be abandoned. Diagnosis on discharge was syphilis and adhesions about liver.

For the next five years patient remained in fairly good health, until she came to New York about five years ago. Ever since she has become progressively more and more tired and sleepy, with few other complaints except occasional headaches, nausea, dizziness, chills and fever. Her appetite and digestion have remained good, her weight constant, bowels regular without laxatives, stools yellow, never

clay colored, urine more or less dark, no itching. Her only and bitter complaint is uncontrollable drowsiness.

Physical examination shows a well nourished, rather attractive young woman, hardly showing her age of 36. Skin and mucous membranes pale with icteric tinge, sclerae distinctly jaundiced, eye grounds negative. Slight general adenopathy, no clubbing.

Chest negative except for a soft systolic blow, heard all over precordia, not transmitted outside of precordium or associated with other evidence of valvular disease, probably of the functioned type. A2 and P2 accentuated and equal.

Abdomen soft and showing slight fullness of left upper quadrant, level with costal border, no points of tenderness, operative scar as described above. Liver upper limit, 5th rib, lower limit, 5 cm. below costal border. Spleen very large, comes down $2\frac{1}{2}$ cm. below level of umbilicus.

Extremities negative. *Reflexes* normal, *Pelvis*, negative.

Patient was advised to enter the Methodist Hospital for further study and for a possible splenectomy, but unfortunately she drifted away, after having been seen twice. This explains the incompleteness of the laboratory evidence, which fails to include a urine analysis and which is as follows:

Red cells	2.720.000	Anisocytosis	"
Hemoglobin	65%	Poikilocytosis	"
Color Index	1.1	Granular Degeneration	None
Microcytes	None	White cells	8000
Macrocytes	"	Polynuclears	71%
Normoblasts	"	Lymphocytes	26%
Megaloblasts	"	Large mononuclears	3%

Blood picture. Large amount of bile in blood serum. Red cells quite fragile, hemolyze quickly and spontaneously under conditions which other cells resist for long periods, which may account for low cell count.

Wassermann, negative.



EDITORIAL



RABIES.

THE Department of Health has again emphasized the increasing prevalence of hydrophobia in New York City. In its Bulletin the significant remark is made that no one who has ever witnessed the horrible death of a victim of this dread disease will ever forget or cease in his efforts to prevent its repetition. Among the cases cited is that of a gentleman who was bitten by his own pet dog while endeavoring to administer medicine. He did not receive prophylactic anti-rabietic treatment and died in consequence. Two measures stand out as of prime importance, both prophylactic, both practical, and both essential. The one is proper care of the wounds supplemented by prompt specific treatment; the other is adequate control of all dogs. That the latter measure is rational and effective has been very definitely proven by the results obtained in localities where a strict enforcement of this precaution has been carried out. The only thing that stands in the way of it here is that calm superiority of the average citizen which permits him to regard the law as made for everyone but himself—an unfortunate characteristic of Americans in general. To observe it one has only to go out after dark when the average citizen takes his dog out, casts off the leash and encourages him to defile his neighbor's property. If one ventures to hint in the kindest manner that front grass plots are not maintained as canine comfort stations, he may be assured of an insolent and abusive reply. It may be safely postulated that the city magistrate who turns his dog loose after dark will be the sternest upholder of the law if somebody else's dog should be found trespassing on his own property. It would be interesting if one could tabulate the number of anti-vivisectionists who regularly flout this reasonable and proper ordinance.

In case of injury it is a wise precaution to have the wound thoroughly cauterized, to undergo a precautionary Pasteur treatment, and to secure the dog for observation. As the period of incubation is long, varying from twenty to ninety days, and as the treatment is of little avail after symptoms of hydrophobia have declared themselves, the wisdom of this course is obvious. In regard to cauterization it is not enough to merely smear the surface with nitrate of silver, or carbolic acid. The wound should be thoroughly cleaned out, opened so that all parts are accessible, and fuming nitric acid applied liberally, under local anesthesia if necessary. If you own a dog don't forget that he may bite you. Protect yourself as well as others; keep him muzzled and in leash and insist that your neighbors do likewise.

H. G. W.

LACTATED SYPHILIS.

MR. BERNARR MAC FADDEN, President of the Physical Culture Corporation and Editor of *Physical Culture*, has been good enough to send out a letter to physicians calling attention to an article on syphilis in the April number of *Physical Culture*, and to one on vaccination in the May number. He states "Physical Culture desires to cooperate with physicians everywhere in presenting the truth with reference to diseases that can be treated at home, and with that end in view we are offering a special physicians' discount of one-third off." *Physical Culture* has published in its April number the article referred to which details the experience of a young man who contracted syphilis, who was treated for it while in the army, who finally refused further treatment, and was dishonorably discharged still having a four plus Wassermann. Discouraged by failure to be rid of the disease, anemic and distressed, he bethought him of a method recommended in Mr. MacFadden's magazine, fasted for a long period, lived absolutely on milk for a number of weeks, and was fully restored to health, so that now he is a successful prize-fighter with a negative Wassermann. This is indeed a remarkable experience, though we doubt how convincing it is going to prove to the bulk of physicians, as we all know doctors are a hidebound lot, wedded to old methods, intolerant of change, and bitterly opposed to innovation especially of the revolutionary kind. This unreasoning attitude Mr. MacFadden courteously acknowledges in the editorial pages of his April issue. In point of fact he announces that the physicians of the country, as represented through the American Medical Association, are presuming to foist health control upon the people, and he pays his compliments to them with that courtliness which characterizes the gentleman of the old school. His letter offering subscriptions at a reduced rate to physicians and his editorial are in such marked contrast that one wonders how a deep thinker of his type can expect physicians in general to rise to the bait when he shakes the gaff so close to their gills. Physicians are fully aware of the inadequacy of the present treatment of syphilis. They are also aware that the Wassermann test is not always dependable, but it will be necessary to conduct some carefully checked observations on the toxic properties of the milk diet in its relation to the *treponema palladium* before they are thoroughly convinced that this single experience constitutes indisputable proof that syphilis can be cured by fasting and milk in every instance. One might go so far as to hint to Mr. MacFadden that his discovery would be more courteously received if he were to approach the subject in a less belligerent style.

As for vaccination statistics, they have been manufactured by the anti-vaccinationists ad nauseam. Anyone can prove anything by statistics, and a clever liar can use the same statistics to prove both sides of the question. It is a curious mental crick that seems to be quite common among all sorts of uplifters (or shall we say boosters?) to endeavor to place upon the defendant the burden of proving them to be in the wrong. In every court of law the burden of proof rests upon the accuser, but the proponents of welfare legislation, whether it be maternity benefits, health insurance, anti-vivisection, anti-vaccination, or what not, propound their theory, clamor loudly that it is a panacea and then endeavor to compel those who are most affected to prove that it is not. Incidentally there are a

variety of semi-nude illustrations in Mr. MacFadden's publication that should help to sell it on sight.

H. G. W.

CANCER CURES.

THE Journal has recently received three communications that seem worthy of attention. They are quite diverse, physically and geographically, yet all convey the same impression. They are all in reference to the cure of cancer.

The efforts of the American Society for the Control of Cancer and the propaganda incident to it have served to bring to the public attention the insidious onset, the need for early diagnosis, and the hopeless or nearly hopeless outlook when the disease has become widely established. It is quite natural that with the ground thus prepared there should be a splendid crop of weeds sown by men who are willing to turn to their private profit the mental distress of cancer sufferers.

Of the three remedies that have been more recently advertised one is a serum prepared by the T. J. Glover Research Laboratories of Toronto, Canada. This has been carefully investigated by Dr. Francis Carter Wood, who has felt that the preparation was so worthless that he has not hesitated to publish a communication to that effect which appeared in the Journal of the American Medical Association for March 26th, 1921.

The second has been but recently received from the Basic Cancer Research Institute. The claims of this Institute were also submitted to Dr. Wood in his capacity as Director of the Cancer Research branch of the Crocker Fund, who speaks in no uncertain way of his impressions as to the essential character of this particular method.

The third communication is from a physician who brings forward much interesting statistical material in the endeavor to fasten upon sodium chloride the responsibility for cancerous growth, and who proposes to combat it by displacing the chloride with carbonates.

The point in all this is to emphasize to the general profession the established fact that there are many high minded scientists who are striving to solve the problem of cancer, and who have repeatedly checked up and discarded suggestions such as these. They are working for the good of humanity, and they will not commercialize any discovery that promises to alleviate this scourge. It is well-nigh incredible that they should have overlooked any methods for cancer relief or have failed to investigate impartially these and other commercial cures. Physicians would do well to acquaint themselves with the fallacies inherent in these ideas, and use their best efforts to enlighten their immediate public on the folly of spending money for anything which does not bear the stamp of general professional approval.

H. G. W.



Society Transactions



Minutes of a Regular Meeting Kings County Medical Society, April 19, 1921

The meeting was called to order at 9:00 p. m. Dr. Bogart presiding. There were about 400 members present.

The minutes of the previous meeting were read and approved.

REPORT OF THE COUNCIL

The Council reported favorably upon the following applications for membership:

Henry H. Beinfeld, 876 Eastern Parkway, L. I. C. H., 1914; proposed by E. A. Griffin; Memb. Com., Mar. '21.

Joseph Carch, 399 Monroe Street, Univ. & Bell, 1913; proposed by Norman Smith; Memb. Com., Mar. '21.

John J. M. Carey, 437 75th Street, L. I. C. H., 1908; proposed by Rollin Hills; Memb. Com., Mar. '21.

Charles S. Danzer, 180 Clinton Avenue, Univ. & Bell, 1915; proposed by M. M. Banowitch; Memb. Com., Mar. '21.

Ralph H. Garlick, 478 75th Street, Cornell, 1911; Rollin Hills; Memb. Com., Mar. '21.

Theodore P. Goldstein, 117 Pennsylvania Ave., L. I. C. H., 1916; proposed by J. Samenfeld; A. Koplowitz, Mar. '21.

Samuel W. Green, 161 Clinton Street, Union Univ., 1917; proposed by R. M. Rogers; W. C. Waggoner, Mar. '21.

Aaron Hirsch, 355 Stockton Street, Univ. & Bell, 1918; proposed by H. Meyersburg; Memb. Com., Mar. '21.

Clarence E. Kretz, 335 State Street, L. I. C. H., 1914; proposed by J. C. Cardwell; Harry Koster, Mar. '21.

Lionel L. Lapointe, 1138 Dean Street, Univ. Pa., 1917; proposed by H. Meyersburg; Memb. Com., Mar. '21.

Anthony Mauglaracina, 129 Wilson Avenue, L. I. C. H., 1916, proposed by C. W. Stickle; H. B. Matthews, Mar. '21.

Mervin C. Myerson, 184 Clinton Street, L. I. C. H., 1917; proposed by Augustus Harris; H. Arrowsmith, Feb. '21.

Elias A. Reed, 44 McDonough Street, L. I. C. H., 1918; proposed by R. Kingman; J. J. Stefano, Mar. '21.

Julian Rose, 1509 Eastern Parkway, Harvard, 1918; proposed by A. F. R. Andresen; J. B. D'Albora, Mar. '21.

Nathan I. Slutsky, 344 Jay Street, Cornell, 1907; proposed by H. Meyersburg; Memb. Com., Mar. '21.

Irving E. Sumner, 802 Flushing Avenue, Univ. & Bell, 1917; proposed by H. Meyersburg; A. M. Judd, Mar. '21.

John D. Verrilli, 561 East 17th Street, Fordham, 1917; proposed by H. Meyersburg; Memb. Com., Mar. '21.

Walter F. Watton, 165 Clinton Street, Univ. Mich., 1916, proposed by H. B. Matthews; Memb. Com., Mar. '21.

Frederick Weintraub, 224 17th Street, Univ. & Bell, '1917; proposed by H. Meyersburg; Memb. Com., Mar. '21.

FOR REINSTATEMENT

Abraham Moss, 616 Bedford Avenue, Cornell, 1903; April '21.

Warren S. Simmons, 1829 Caton Avenue, P. & S., N. Y., 1892, April '21.

ELECTION OF MEMBERS

Herbert C. Anderson, 386 Clinton St., L. I. C. H., '96; proposed by G. Gibson; H. B. Matthews, '21.

G. H. Davis, 623 8th Ave., P. S. N. Y. '18; proposed by H. B. Matthews; H. G. Webster, '21.

Harry Feldman, 28 Broome St., Univ. & Bell, '16; proposed by F. D. Jennings; A. Bell, '21.

Albert Harris, 428 Hinsdale St., L. I. C. H., '12; '21.

C. W. Janson, 978 Bushwick Ave., Cor. '02; '21.

David Livingstone, 323 72nd St., L. I. C. H.; '21.

Elias A. Lessem, 1800 St. Johns Pl., Univ. & Bell; proposed by W. A. McLaren; J. J. Wagner.

G. G. McElvare, 868 Park Pl., P. & S., '15; proposed by J. M. Scannell; W. J. McCullough.

Edward H. Nidish, 255 Schenectady, Univ. & Bell, '16; proposed by A. Harris; W. Pfieffer.

Leo S. Sacharoff, 45 Stuyvesant Av., P. & S. '19; proposed by E. L. Hergert; H. S. Fisher.

Jos. G. Terrace, Nor. Hospital, L. I. C. H., '20; proposed by P. J. Genthner; H. F. Graham.

John A. Timm, 184 Clinton St., Univ. Minn., '18; proposed by F. Seidensticher; E. K. Tanner.

G. Marjorie Williams, 102 Lefferts Pl., Syr., '18; proposed by Elizabeth A. Bruyn; H. B. Matthew.

Applications for membership have been received from the following:

Marius L. Abbene, 35 Jefferson Street, N. Y. Hom. Med. Coll., 1914; proposed by J. A. Bilello; J. B. L'Episcopo, Apr. '21.

Gregory Aronowitz, 247 Throop Avenue, P. & S., N. Y., 1912; proposed by M. M. Banowitch; M. Weissberg, Apr. '21.

Nejib Barbour, 136 State Street, A. M. C., Beyrout, 1887; proposed by E. E. Hicks; R. H. Pomeroy, Apr. '21.

Louis Berger, 338 Jay Street, Univ. & Bell, 1918; proposed by W. M. Ennis; T. M. Brennan, Apr. '21.

Alexander A. Bersin, 143 Kent Street, L. I. C. H., 1914; proposed by Augustus Harris; Geo. D. Hamlin, Apr. '21.

Clifton Bogardus, 537 53rd Street, Albany, 1912; proposed by Augustus Harris; Memb. Com., Apr. '21.

Thomas L. Bowmar, 866 Sterling Place, N. Y. Hom. Med. Coll., 1915; proposed by Augustus Harris; Memb. Com., Apr. '21.

Perle B. Brockway, 629 Eastern Parkway, Syracuse, 1908; proposed by Augustus Harris; Memb. Com. Apr. '21.

Morris Brooks, 300 12th Street, L. I. C. H., 1917; proposed by M. M. Banowitch; H. B. Matthews, Apr. '21.

Ethelbert A. Callaghan, 97 St. James Place, L. I. C. H., 1916; proposed by Augustus Harris; Henry A. Fisher, Apr. '21.

Albert H. Casey, 699 Ocean Avenue, Univ. & Bell, 1919; proposed by Onslow A. Gordon, Jr.; Memb. Com., Apr. '21.

John H. Clark, 378 Park Place, L. I. C. H., 1915; proposed by Augustus Harris; Memb. Com., Apr. '21.

Augustus E. Cordes, 950 Bushwick Avenue, Albany, 1899; proposed by W. E. Stern; Memb. Com., Apr. '21.

Peter J. Dulligan, 272 Jefferson Avenue, Harvard, 1911; proposed by Roger Durham; H. B. Matthews, Apr. '21.

David Farber, 619 Howard Avenue, Univ. & Bell, 1919; proposed by A. H. Iason; S. R. Blatteis, Apr., '21.

William G. Flickinger, 417 72d Street, Jefferson, 1916; proposed by Augustus Harris; Memb. Com., Apr. '21.

Daniel L. Golann, 274 Lincoln Road, Univ. & Bell., 1915; proposed by M. B. Gordon; Memb. Com., Apr. '21.

George F. Hogan, 256 Ovington Avenue, L. I. C. H., 1916; proposed by Augustus Harris; Memb. Com., Apr. '21.

John C. Holzberger, 979 Fresh Pond Road, L. I. C. H., 1915; proposed by Augustus Harris; Memb. Com., Apr. '21.

Joseph Jacaruso, 657 Lorimer Street, N. Y. Hom. Med. Coll., 1918; proposed by R. S. Fowler; H. Meyersburg, Apr. '21.

Jules Kranz, 269 Dean Street, N. Y. Hom. Med. Coll., 1917; proposed by James A. Cooley; Memb. Com., Apr. '21.

Milton A. Lampert, 1247 Union Street, Cornell, 1908, proposed by Augustus Harris; Memb. Com., Apr. '21.

Solomon Levine, 642 Marcy Avenue, P. & S., N. Y., 1913; proopsed by M. M. Banowitch; Memb. Com., Apr. '21.

Harry Lipton, 476 Washington Avenue, L. I. C. H., 1916; proposed by Augustus Harris; Memb. Com., Apr. '21.

Herman Lowenstein, 419 Eldert Lane, L. I. C. H., 1917; proposed by H. Meyersburg; R. S. Fowler, Apr. '21.

Harry J. Lynch, 1412 Avenue U, Univ. & Bell, 1910; proposed by Augustus Harris; Memb. Com., Apr. '21.

Frank F. Lyne, 176 Winthrop Street, P. & S., N. Y., 1903; proposed by Augustus Harris; Memb. Com., Apr. '21.

Frederick R. Meeks, 100 Hancock Street, N. Y. Hom. Med. Coll., 1907; proposed by J. A. McCafferty; Memb. Com., Apr. '21.

John S. Message, 270 Berry Street, L. I. C. H., 1911; proposed by Augustus Harris; Memb. Com., Apr. '21.

Frank Moskowitz, 73 Patchen Avenue, Univ. & Bell., 1918; proposed by Richard J. Kenna; Memb. Com., Apr. '21.

Carl H. Mueller, Jr., 743 Bushwick Avenue, Cornell, 1911; proposed by H. Meyersburg; Memb. Com., Apr. '21.

Joseph L. Pfeifer, 33 Orient Avenue, L. I. C. H., 1914; proposed by Augustus Harris; Memb. Com., Apr. '21.

Edwin T. Redmond, 1115 Carroll Street, Cincinnati Eclectic, 1916; proposed by Augustus Harris; Memb. Com., Apr. '21.

Gregory L. Robillard, 462 82nd Street, Fordham, 1918; proposed by Augustus Harris; Memb. Com., Apr. '21.

Herman Rubin, 459 50th Street, L. I. C. H., 1910; proposed by Augustus Harris; Memb. Com., Apr. '21.

Solomon Schneider, 1588 Eastern Parkway, L. I. C. H., 1914; proposed by Augustus Harris; Memb. Com., Apr. '21.

William F. Shaw, 1200 Pacific Street, N. Y. Hom. Med. Coll., 1912; proposed by Augustus Harris; Memb. Com., Apr. '21.

J. Louis Simpson, 97 Park Avenue, Fordham, 1918; proposed by Augustus Harris; Eliot Bishop, Apr. '21.

Samuel G. Siskind, 418 State Street, L. I. C. H., 1917; proposed by M. M. Banowitch; H. B. Matthews, Apr. '21.

Charles Solomkin, 432 Stone Avenue, Univ. & Bell., 1909; proposed by Augustus Harris; Joseph Tenopyr, Apr. '21.

Joseph G. Strickler, 7610 4th Avenue, Fordham, 1912; proposed by Augustus Harris; Memb. Com., Apr. '21.

John F. Wolfram, 69 Halleck Avenue, L. I. C. H., 1918; proposed by Augustus Harris; Memb. Com., Apr. '21.

A letter from the New York Society of Anaesthetists requesting the endorsement of the Kings County Medical Society in its endeavor to establish a section in Anaesthetics at the June meeting of the American Medical Association, was read.

It was moved that Kings County Medical Society endorse this petition.

The Chairman of the Centenary Celebration Committee read a report of progress.

The Chairman of the Legislation Committee read a report of the Committee's work, and urged the society's support of Lord Bill No. 1 and No. 2.

It was moved that the delegates to the State convention be instructed to oppose the proposed amendment to Art. VII, Sec. 2 of the Constitution, whereby the dues would be raised from \$3 to \$5.

It was moved that the delegates be instructed to vote against the proposed amendment to Art. IV, of the Constitution, which alters the apportionment of representation in the House of delegates.

It was moved that the Society endorse Lord Bill No. 1 and Lord Bill No. 2, and that a record of this action be sent to the Governor of the State.

SCIENTIFIC PROGRAM

(Joint meeting with the Brooklyn Gynecological Society.)

Paper: "The Treatment of Abortion, Based on a Series of 500 Cases Observed at Bellevue Hospital." By Onslow A. Gordon, Jr., M. D.

Discussion opened by Ralph H. Pomeroy, M. D.

Paper: "The Etiology and Treatment of Eclampsia." By Barton Cooke Hirst, M. D., Philadelphia.

Discussion opened by Robert L. Dickinson, M. D.

The meeting adjourned at 11:20 p. m.

Secretary.

Medical Book News

BOOK REVIEW SUPPLEMENT TO THE LONG ISLAND MEDICAL JOURNAL

Edited by JAMES M. WINFIELD, M.D.

All communications, books for review, etc., should be addressed to the Editor of this Department, 1313 Bedford Ave., Brooklyn, New York

1921, No. 6

JUNE, 1921

4 PAGES

THE SURGICAL CLINICS OF NORTH AMERICA.

THE SURGICAL CLINICS OF NORTH AMERICA. Published Bi-Monthly (Six numbers a year). Philadelphia & London, W. B. Saunders Company, Volume 1, Number 1, February, 1921, (Philadelphia Number). Price per year \$12.00.

The custom of presenting carefully studied surgical cases, with notes and comments at the time of operation, observations upon the after-treatment followed to the time of discharge from the hospital is of inestimable value for teaching purposes. The impetus and enthusiasm engendered by the late John B. Murphy has never died. A worthy successor of Murphy's Clinics for a number of years was the Surgical Clinics of Chicago to which the best of Chicago's surgical talent has contributed with distinction.

A number of years ago the writer made the suggestion that the work of other surgical clinics than Chicago be included in this publication and that the title be changed accordingly in recognition of its added inclusion of the surgery of other cities. We note with pleasure and satisfaction that the broader policy is now effective and that "The Surgical Clinics of North America" is an established fact.

In the first number is presented the work of the Philadelphia Clinics. Dr. W. W. Keen, in the introduction, sketches the pioneer teaching of clinical surgery as given in that city in the early 60's of the last century. The Clinics of Drs. J. C. DaCosta, J. C. Clark, C. H. Frazier, A. P. C. Ashurst, J. H. Gibbon, C. F. Nassau, T. T. Thomas, J. H. Jopson, and G. P. Muller, are included and present an interesting array of cases. Dr. Deaver's contribution is on Pancreatitis.

We look forward with pride to a forth-coming issue in which Brooklyn will be featured, when our own surgeons will contribute from Brooklyn institutions.

R. H. FOWLER.

DERMATOLOGY.

DERMATOLOGY; THE ESSENTIALS OF CUTANEOUS MEDICINE. By Walter James Highman, M.D. New York, The Macmillan Company, 1921. 482 pages, 95 plates. 8vo. Cloth, \$6.00.

In beginning the review of this book one encounters a number of tables on Congenital and Hereditary Diseases, the Causes of Urticaria, the therapeutic agents producing drug eruptions, etc., and it is not until these are thought of a little more seriously that their value in such a book is recognized.

Then on reading the descriptions of various cutaneous maladies one realizes how thoroughly the author has done his work. There is nothing omitted in the descriptions from synonyms, definition and symptoms right on through the treatment, which is of the rational type, having been proven by the author, and closing with the prognosis of each disease. We may readily observe that there have been eliminated the discussions on histopathology, but the author has written his book for "general practitioners and novice dermatologists" who are as yet unable to comprehend this phase of the work.

His photographic plates, although not very numerous, are unusually expressive of the lesions they represent and are so arranged at the conclusion of each division that they have the effect of giving differential diagnosis by immediate contrast.

His descriptions of tuberculosis of the skin and the tuberculides clarifies to a great degree a very confusing subject. In the same way he elucidates the confusing lesions of syphilis and finally on page 424 he groups the general symptoms of central nerve syphilis, subsequently describing the additional symptoms in tabes and paresis.

His attitude toward the treatment of both acquired and congenital syphilis is to be commended because it is based on sound apprecia-

tion of what can be accomplished rather than extreme optimism or pessimism.

E. ALMORE GAUVAIN.

TEXTBOOK OF INDIGESTION.

TEXTBOOK OF INDIGESTION. By G. Herschell. Fourth Edition, revised and re-written by Adolphe Abrahams, M.D. New York and London, Longmans, Green & Co., 1920. 228 pages. 8vo. Cloth, \$3.75.

This English work, as rewritten by Abrahams, is really a small, practical textbook of the diseases of the stomach. The first 80 pages of the book are taken up with a general discussion of the physiology and pathology of digestion and a description of the methods used in examination of the stomach. The very brief discussion of the X-Ray examination demonstrates that the author adheres to the old belief that fluoroscopy is of more value than radiography in examination of the gastro-intestinal tract. The next 40 pages are devoted to a discussion of the organic diseases of the stomach. In the discussion of peptic ulcer, the medical aspects of the subject are not as well presented as the indications for and against operation. The chapter on malignancy discloses nothing more than the usual conventional matter. Fifty pages are devoted to reflex gastric disturbances "nervous indigestion," this subject being treated with a full realization of the increasingly more limited number of conditions which can be classed as functional. An appendix "on the preparation of food by cooking" retains Dr. Herschell's original contributions to dietetics, and is a good cook-book for any clinician to study to familiarize himself with the preparation of food for the sick. On the whole, the book can be recommended as a handy reference book.

A. F. R. A.

TEXT-BOOK OF ORGANIC CHEMISTRY.

TEXT-BOOK OF ORGANIC CHEMISTRY. By A. F. Holleman, Ph. D., F.R.A. Amst. Fifth English Edition, completely revised. Edited by A. Jamieson Walker, Ph. D., B. A., F. I. C., assisted by Owen E. Mott, O. B. E., Ph. D., F. I. C. New York, John Wiley and Sons, Inc., 1920. 642 pages. Illustrated. 8vo. Cloth, \$2.25.

This text on organic chemistry differs but slightly from the average text in the general arrangement of the material contained therein.

It is as complete as is advisable for use as a text-book and presents the subject in a comprehensive manner.

For the student in general chemistry or pharmacy, the text offers an admirable foundation, but for the average prospective medical student where the course in organic chemistry usually covers but one semester, it would be extremely difficult to do justice to all the facts set forth in so large a text in such a short period of time.

R. F. H.

MEDICAL SERVICE IN MODERN WAR

MEDICAL SERVICE IN MODERN WAR. An Exposition of the Practical Functions of the Medical Department in Campaign. By P. S. Bond, Lieut.-Col. U. S. Army and C. F. Martin, Lieut.-Col., U. S. Army. Menasha, Wis., George Banta Publishing Co., 1920. 76 pages. Plates. 8vo.

This book of 75 pages and 14 plates gives a thorough presentation of the organization, personnel and duties of the medical branch of the service. The authors recognized that "it is the function of the medical department to keep the fighting man in battle," and in detail, describes the methods by which the army personnel is kept most efficient. Emphasis is placed upon the fact that cleanliness in all matters is essential to efficiency. The necessary organization to care for the men from the battle-field to recovery and return to their company is carefully presented. Appendix A contains a Summary of Health and Casualty Statistics of the World War and is most instructive, showing a remarkable decrease in the death rate from disease as compared with previous wars. The number of deaths per 1,000 from disease in the Mexican War was 110, in the war of 1861-64 was 65, in the Spanish War was 26, in the World War was 19. This result is due to greatly improved preventive measures. The plates shown in this book are interesting and instructive. The importance of the medical service to the other branches of the army has been more clearly recognized because of the World War than because of any previous war. This book can be useful to the Medical Reserve Officer.

HENRY M. MOSES.

THE COMMUNITY HEALTH PROBLEM.

THE COMMUNITY HEALTH PROBLEM. By Athel Campbell Burnham, M. D. New York, The Macmillan Company, 1920. 149 pages. 12mo. Cloth, \$1.60.

In this brief work, Dr. Burnham outlines the scope of the public health problem and sketches the important points for community solution. Those unfamiliar with the problem and indeed many of those who are conversant with it will find many valuable suggestions in Dr. Burnham's book. Its sole fault is brevity—a volume of equal size could be devoted to almost any topic discussed.

E. H. M.

AN INTRODUCTION TO CHEMICAL PHARMACOLOGY.

AN INTRODUCTION TO CHEMICAL PHARMACOLOGY; PHARMACODYNAMICS IN RELATION TO CHEMISTRY. By Hugh McGuigan, Ph. D., M. D. Philadelphia, P. Blakiston's Son & Co., 1921. 418 pages. 12mo. Cloth, \$4.00.

Not content with having but recently issued a Laboratory Manual of Pharmacology, Dr. McGuigan now comes forth with An Intro-

duction to Chemical Pharmacology that is equally as unique as the former mentioned volume. Brief, but sufficient, this work summarizes the generally accepted pharmacologic action of drugs in a manner that is most enjoyable reading—an accomplishment in itself. The author is an indefatigable worker: this book must have meant an immense amount of work in the realm of research alone, but a great deal more in the effort to condense the material into so small a volume without sacrificing accuracy.

In as much as all pharmacologic action is essentially chemical in character, this angle of the subject is given chief consideration, but the author's style makes of it a text that is easily within the comprehension of the average student and practitioner and both should profit from a reading of this book.

M. F. DeL.

OLD AT FORTY OR YOUNG AT SIXTY.

OLD AT FORTY OR YOUNG AT SIXTY; SIMPLIFYING THE SCIENCE OF GROWING OLD. By Robert S. Carroll, M. D. New York, The Macmillan Company, 1920. 147 pages, illustrated 12mo. Cloth, \$2.25.

Never before in man's history has the ability to lengthen and better the latter years been reducible to general practice. The author endeavors to do this and succeeds admirably. The lay reader will enjoy this book and will read it with considerable profit. It contains a wealth of hard common sense in dealing with the relationship of food, exercise, work, rest and mental ability.

E. H. M.

A TEXT-BOOK OF ORGANIC CHEMISTRY.

A TEXT-BOOK OF ORGANIC CHEMISTRY FOR STUDENTS OF MEDICINE AND BIOLOGY. By E. V. McCollum, Phd. D. Second Edition, Revised. New York, The Macmillan Company, 1920. 466 pages. Illustrated. 12mo. Cloth, \$2.60.

In Dr. McCollum's second edition we find the subject of organic chemistry discussed chiefly from an elementary standpoint best fitted for the beginner in the study of medicine. It is a text which should be introduced into the pre-medical courses, as organic chemistry is a pre-requisite subject in Class A medical colleges.

The chapter on the proteins will give the student a general idea of the nature of these substances, so that when he later begins the study of biologic chemistry, he has a fair knowledge of their character.

R. F. H.

OPTIMISTIC MEDICINE.

OPTIMISTIC MEDICINE, OR THE EARLY TREATMENT OF SIMPLE PROBLEMS RATHER THAN THE LATE TREATMENT OF SERIOUS PROBLEMS. By A Former Insurance Man. Philadelphia, F. A. Davis Company, 1921. 318 pages. 8vo. Cloth, \$3.00.

This book is written by "A Former Insurance Man" who gives no further information as to his identity. His plea is for a more optimistic or cheerful attitude on the part of the physician when treating his patients. With an initial chapter devoted to the subject of optimism in general, this is followed by a discussion of its application in building up immunity to disease; to childhood and its problems; adolescence and the family doctor; the housemother who worries; and the overworked business man. Altogether there are sixteen chapters in which the main theme is optimism and the need for its practice.

For the physician the book is of value in showing the layman's viewpoint of some current practices of the medical profession. It affords a chance "to see ourselves as others see us."

A. E. S.

PRACTICAL PSYCHOLOGY AND PSYCHIATRY.

PRACTICAL PSYCHOLOGY AND PSYCHIATRY. For use in Training-Schools for Attendants and Nurses and in Medical Classes, and as a Ready Reference for the Practitioner. By C. B. Burr, M. D. Fifth Edition, revised and enlarged. Philadelphia, F. A. Davis Company, 1921. 269 pages, illustrated. 12mo. Cloth, \$2.00.

This small book as a reference for the general practitioner, who wishes only a brief discussion of psychological and psychiatric phenomena, can be highly recommended. The fact that it is in its fifth edition shows that it has already achieved marked popularity.

We know of no other brief exposition of this subject,—unless it be White's "Outlines of Psychiatry"—which will be so satisfactory to the general reader who does not wish to delve deeply into Psychiatry, but who wants only a reading knowledge of the fundamental facts of this science.

The non-specialist in this field who would spare the time to read this book twice would acquire a very good working knowledge of the subject of psychopathology. In other words, it is a book worth while.

J. F. W. MEAGHER.

BOOKS RECEIVED.

Books received for review are acknowledged promptly in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases review notices will be promptly published shortly after acknowledgment of receipt has been made in this column.

HANDBOOK OF ELECTROTHERAPY FOR PRACTITIONERS AND STUDENTS. By Burton Baker Grover, M. D. Philadelphia, F. A. Davis Company, 1921. 420 pages, illustrated with 103 engravings. 8vo. Cloth, \$4.00.

THE NEW POCKET MEDICAL FORMULARY. By William Edward Pitch, M. D. Third Edition, revised. Philadelphia, F. A. Davis Company, 1921 470 pages. 12mo. Cloth, \$2.50.

SURGERY, ITS PRINCIPLES AND PRACTICE. By Various Authors, Edited by William Williams Keen, M. D., LL. D. Volume 8. 960 pages, with 657 illustrations. Complete Index to Vols. 1 to 8. 182 pages. Philadelphia, & London, W. B. Saunders Company, 1921. Price: Vols. 7 and 8 and Desk Index, Cloth, \$25.00 net per set.

PRACTICAL CHEMICAL ANALYSIS OF BLOOD. A Book Designed as a Brief Survey of this Subject for Physicians and Laboratory Workers. By Victor Caryl Myers, M. A., Ph. D. St. Louis, C. V. Mosby Co., 1921. 121 pages, illustrated. 8vo. Cloth, \$3.00.

PRINCIPLES OF THERAPEUTICS. By Oliver T. Osburn, M. A., M. D., Phila. & London, W. B. Saunders Company, 1921 881 pages. 8vo. Cloth, \$7.00.

A PRIMER FOR DIABETIC PATIENTS. A Brief Outline of the Principles of Diabetic Treatment, Sample Menus, Recipes and Food Tables.

By Russell M. Wilder, Ph. D., M. D., Mary A. Foley and Daisy Ellithorpe. Phila. & London, W. B. Saunders Company, 1921. 12mo. Cloth, \$1.50.

PRINCIPLES OF HYGIENE. A Practical Manual for Students, Physicians, and Health Officers. By D. H. Bergey, A. M., M. D., Dr. P. H. Seventh Edition, thoroughly revised. Phila. & London, W. B. Saunders Company, 1921. 556 pages, illustrated. 8vo. Cloth, \$5.50.

THE TECHNIQUE OF PSYCHOANALYSIS. By Smith Ely Jelliffe, M. D., Ph. D. Second Edition, revised and enlarged. New York & Washington, Nervous & Mental Disease Publishing Co., 1920. 171 pages. 8vo. Paper, \$2.50. (Nervous & Mental Disease Monograph Series No. 26.)

ROENTGENTHERAPEUTISCHES HILFSBUCH für dies Spezialisten der ubrigen Facher und die praktischen Aerzte. Von Dr. Robert Lenk. Berlin, Julius Springer, 1921. 58 pages. 8vo. Paper, 8 Marks.

ORTHOPAEDIE DES PRAKTISCHEN ARZTES. Von Prof. Dr. August Blencke. Berlin, Julius Springer, 1921. 289 pages with 101 illustrations. 8vo. Cloth, 36 Marks.

GRUNDRISS DER GESAMTEN CHIRURGIE. Von Dr. Erich Senntag. Berlin, Julius Springer, 1921. 810 pages. 12mo. Cloth, 38 Marks.



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Notes Regarding Certain Non-Tuberculous Pulmonary Infections*

GLENTWORTH R. BUTLER, M. D.

Brooklyn, New York.

IN the majority of patients it is quite possible for the careful physician to make a definite diagnosis of pulmonary tuberculosis. The history of gradual loss of weight and strength, the physical examination, the observation of the temperature, the X-ray examination (perhaps), and, finally, the finding of acidfast bacilli in the sputum will ordinarily permit a decisive judgment. But, from time to time a patient appears presenting symptoms and signs which, at least, strongly suggest a diagnosis of tuberculosis, and yet time and further observation show beyond peradventure that the infection is non-specific.

The particular non-tuberculous affections which give rise to difficulties in diagnosis are "apical catarrh"; certain post-influenzae sequelae; and pneumonia, especially the diffuse bronchial type. Other conditions, occasionally confusing, but not considered here, are pulmonary abscess, infarctions of the lung, and chronic pleurisy.

I. *Apical Catarrh*.—There has been comment, affirmative and negative, as to the existence of a simple catarrh of one apex. While it is a rare finding it certainly exists. It may be subacute, or chronic.

(1) The *subacute* form is an early sequel of the milder cases of influenzal bronchopneumonia, in which the bronchial overshadows the pneumonic element. In such cases the predominating signs are fine and medium rales, bilateral, and extending from apices to bases. In the great majority of instances the lungs clear from the apices downward, but in a very small percentage when the midlung and the bases are free, the rales are still distinctly heard at one or both apices, usually the right apex only. There is no abnormality of the breath sounds, the percussion note is usually normal or perhaps a little over-resonant, and the temperature is flat. But if an examiner, without knowledge of the history, should auscultate the apex he would, at first, feel fairly certain of a tuberculous infection. It is probably not a coincidence that

* Read before the Brooklyn Medical Society, May 20, 1921.

these subacute apical catarrhs usually occur in those who are the subjects of emphysema or cardiac disease, especially mitral stenosis.

(2) *Chronic apical catarrh* also exists. I watched two patients, one for nine, one for seven, years. At any time during these years it has been possible to hear fine crackling rales, at the right apex in both cases, with negligible alterations in breath and voice sounds. Sputum examinations, many times repeated, have shown in one a pure culture of the pneumococcus; in the other a predominant streptococcus, with a few pneumococci. There are no constitutional symptoms in either instance. It seems perfectly warranted to regard these persons as carriers of the organisms found, just as may be the case with the Loeffler bacillus in the throat, and the bacillus typhosus in the gall-bladder.

II. *Post-Influenzal Sequelae*.—The recent epidemics of influenza have given rise to a very considerable number of cases in which, for a time, a diagnosis of tuberculosis has been entertained. The apprehensions which most of us felt as to the probable effect of this disease—as yet of unknown etiology—in initiating or favoring infection with the bacillus of tuberculosis have fortunately proved baseless. The sequels of influenza which are of importance in the differential diagnosis of tuberculosis are bronchitis, lobar pneumonia, and bronchopneumonia, with their subacute or chronic results.

(1) *Bronchitis*, more or less persistent, may follow an influenza. The cough and expectoration may suggest a possible tuberculosis, but, on examination, the physical signs, seldom more than simple rales, are found to be bilateral, usually over the lower two thirds of the lungs. Emphysema, and nephritic or cardiac disease are rather apt to co-exist, and may be responsible for the persistence of the bronchitis. As a rule there is no elevation of temperature, or loss of weight or strength. The sputum is regularly negative for tubercle bacilli. Ordinarily there is little danger of mistaking a bilateral bronchitis for tuberculosis.

(2) *Lobar pneumonia* is not so rare now as it was during and immediately after the influenzal epidemics. In the great majority of cases resolution occurs, and it is very seldom that it requires separation—which time alone will accomplish—from acute pneumonic tuberculosis. The so-called unresolved pneumonia is prone to be a persistent pleurisy, an empyema, or a lung abscess.

(3) *Bronchopneumonia*, either ordinary or influenzal, presents a different aspect. It is the subacute and chronic results of this disease which most frequently give rise to the thought of tuberculosis. The bronchopneumonia may be either of pneumococcal or streptococcal etiology, or mixed. Most commonly it is of the mixed type, the streptococcus predominating. Not infrequently there is an accompanying pleurisy, generally fibrinous, but with a percentage of empyemas.

In favorable cases resolution occurs. But, as compared to the lobar type, the areas of exudate in lobular pneumonia are distinctly more likely to develop into localized interstitial fibroses. Such fibrotic areas involve the alveoli, bronchioles, blood-vessels, and lymphatics. So also the pleurisy is apt to cause more or less permanent adhesions. If these changes are sufficiently extensive and long continued, bronchiectases are formed, and the lung becomes fibrotic, shrunken, and adherent, an example of chronic interstitial pneumonia.

III. Clinically one meets all varieties, both as to duration and extent, in these unresolved bronchopneumonias.

(1) In the milder, *subacute* forms the patient convalesces slowly, and cough, expectoration, and perhaps a subfebrile temperature persist.

The patient may be able to get about, and the nutrition of the body may be fairly good, but real health has not returned. Very naturally tuberculosis is apprehended. Certain physical signs are found, usually on one or the other side, at or below the angle of the scapula. These are slight dullness, vesiculobronchial breathing, increased whisper, and fairly abundant fine and medium moist rales. In the mildest cases the rales alone may be present. Ordinarily in from 6 to 12 weeks there is a gradual but progressive diminution, and final disappearance, of these signs and symptoms, without leaving permanent traces. Exceptionally there may be a slight temporary exacerbation during the process of recovery.

(2) In the *subchronic* sequels of bronchopneumonia, ordinary or influenzal, the duration is considerably longer, the physical signs more definite, and the resemblance to tuberculosis more striking. If, as is usual, there has been a pleurisy, the expansion of the affected side will show more or less limitation, and the dullness will be greater. The breathing is bronchovesicular, or almost bronchial, and, unless there is considerable thickening of the pleura, the voice and vocal fremitus will be definitely increased. From time to time there may be recurrences of slight fever. The cough, expectoration, and physical signs present corresponding moderate exacerbations.

The majority of such patients proceed to a symptomatic recovery within a few months, usually six, rarely eight. But a careful examination generally shows evidences of a thickened pleura, or a small but permanent area of impaired resonance and harsh respiration, without rales.

Unfortunately a minority, luckily small, of the subchronic cases do not recover, symptomatically or otherwise, the original damage having been too great for reparation. Cough and expectoration continue, and contraction of the affected side ensues. The physical signs persist, and ultimately shift to those which are more or less characteristic of chronic pulmonary fibrosis, with or without bronchiectases.

IV. "*Carrier*" cases have been mentioned, without symptoms, in which the apex was the locus. A patient, without fever, cough, or expectoration, was under observation for twelve years. She finally died, in her seventies, of cardiovascular disease. But at any time during these years there were, at the right base over an area as large as the palm of the hand, numerous liquid rales of rather large size, without noticeable change in percussion, voice or breath sounds. Repeated sputum examinations invariably showed a pure culture of the pneumococcus. To hear rales of this character and extent, in a patient who was at the time subjectively, and in all other respects, objectively well was singularly interesting.

V. It is not the intention of this paper to mention all possible conditions which may be mistaken for pulmonary tuberculosis. Abscess of the lung is seldom a cause of error; so also with pulmonary infarctions, as they usually occur in connection with diseases the nature of which points pretty definitely to the character of the pulmonary lesion. The conditions previously described can, for the most part, be differentiated from tuberculosis by the following criteria.

(1) An attentive consideration of the history. If the condition under observation dates from a definite and acute attack of bronchitis or influenza, followed by bronchopneumonia, it is probably non-tuberculous.

(2) If, as often happens, the patient is free from fever, and has

lost little weight or strength, in spite of cough, expectoration, and the presence of more or less marked physical signs, it is very unlikely that he is tuberculous.

(3) If the apices are clear, and the physical signs confined to the midlung and base, it is almost certain not to be tuberculosis. If the lower two-thirds of the lung are tuberculous it will be found that the apices are diseased, and the basal lesions secondary.

(4) The absence of tubercle bacilli in the sputum after repeated examinations will be confirmatory.

(5) If the signs are at one or the other apex, the condition must be considered as tuberculous, until longer study shows it to be one of the rare catarrhal or other non-tuberculous lesions which may affect an apex.

VI. Regarding the *therapeutics* of the sequels of the acute respiratory infections to which reference has been made, two points are worthy of notice.

(1) Cases of influenza and bronchopneumonia should not be prematurely dismissed from observation. It is the physician's duty to be quite as concerned about the proper management of convalescence as he was in regard to the acute stage. Much may be done by preventing the too early resumption of ordinary activities, and facilitating, by whatever means may suggest themselves, the orderly and uninterrupted progress of resolution.

(2) Signs of incomplete recovery having become manifest in one of the degrees described, the treatment should be precisely that of a beginning tuberculosis. The mainstays are, of course, rest, fresh air the clock around, sunlight when available, good food and plenty of it. Exercise, regulated as to time and amount, is desirable in the afebrile patient, unless he is much below his proper weight. A change of environment is often extremely helpful. These patients do much better inland than by the ocean, and at a moderate elevation than in low-lying ground.

Medicinal therapeutics are of relative unimportance compared to the mode of life. Nevertheless much good may come of the use of arsenic, iron, and the tonic dose of digitalis.

Surgical Aspect of Diabetes

JOSEPH P. MURPHY, M. D.

Brooklyn, New York.

In presenting the subject of Diabetes from the surgical aspect, I do so, not with the intent of presenting something new or even unfamiliar, but rather with a desire to bring more vividly before us a perennial condition.

Diabetes, Acidosis, Glycosuria, Hyperglycemia and allied attributes, are prevalent at all ages, all seasons, in all people and in diverse social strata of humanity, with a preference for those of the highest mentality. Unlike the infectious diseases quarantine and mandatory legislation cannot eradicate it nor generations back give us an immunity in any degree as a heritage. While Medical schools exist,

this subject will not be ancient history, but ever new for them to teach and doctors to treat twelve months in the year. It is axiomatic that no class of patients are more prone to surgical complications, have less healing power and less resistance to toxic infection than the diabetic.

A patient, middle aged, obese and of sedentary habit, walks into your office with history of having cut his corn a "little close"; he does not know that he drew blood; or a toe has been trod upon in a crowded street car. An examination discloses a small lesion with a peculiar redness of the surrounding zone; the thought of Diabetes is automatic with a visual survey.

In this disease the Medical man and the Surgeon meet on common ground. Diagnostic ability and manual dexterity will avail little without a sound and wide knowledge of this disease in its many and various phases.

The Diabetic is susceptible proportionately to many more surgical conditions than the normal individual, and unfortunately, at a greater surgical risk. The anesthesia, shock and hyperglycemia, lack of ordinary resistance to infection, feeble resolution and feeble reconstruction and repair, must always be means of grave consideration to the Surgeon and no surgical operation, on these class of people, may be deemed trivial. The facts are elemental but so vital to the patient, so germane to the assumed responsibility of the Medical adviser and operating Surgeon, so pertinent in the predication of results to the patient and to the relatives, that no apology should be necessary for their reiteration.

Much knowledge of this disease has been gained during the last twenty-five years, more through laboratory work than from clinical observation and morbid-pathology. In the treatment and management of these cases, we are greatly indebted to Doctor Allen and Doctor Joslin.

In looking over Osler's "Practice of Medicine" which was used as a text book in the '90's, and Osler and McCrea which is just fresh from the press, they are so widely different as to be unrecognized by those familiar with the old and new book. In the old book, Diabetes was defined as "A disorder of nutrition in which sugar accumulated in the blood and is excreted in the urine, the daily amount of which is greatly increased." In the new book, it is defined as "A disease of metabolism in general with essential disturbance of carbohydrate metabolism in which the normal utilization of carbohydrate is impaired with an increase of the sugar content of the blood and consequent glycosuria." There is a tendency to subsequent disturbance of the fat metabolism with resulting acidosis (Ketosis).

As you know, the normal percentage of sugar in the systemic blood is .06 to .11 in the fasting state; one or two hours after a meal containing carbohydrate, may rise to 0.15, and that the glycogenic storage capacity of the liver is pretty constant at about one-tenth of its weight; the triple process of transformation, storage and re-transformation of the systemic sugar is affected by special enzymes which are furnished by the internal secretion of the pituitary or hypophysis, and chiefly by the pancreas which are modified in their function by the Nervous system.

The blood sugar must reach a certain concentration before glucose appears in the urine; one degree above this specified concentration is termed the threshold.

All clinicians have noted that after certain mental emotions, sugar may be found in the urine. These cases should be regarded with suspicion. This condition, i. e., Glycosuria, due to mental strain without apparent morbid pathology is analogous to surgical shock, and these people, while they are not Diabetic, are grave surgical risks from their susceptibility to a depletion of the alkali reserves of the body and especially of the bi-carbonates of the blood.

In essential Diabetes, there are but two factors to be considered—the hypophysis and the pancreas. Murphy stated that in Diabetics over forty years of age, the gross pathological condition of the pancreas could be demonstrated in over 97% of the cases. We must remember that 10% of adults have gall stones (Brewer's surgery) that the common duct runs downward, backward and to the left between the layers of the lesser omentum in front of the Portal vein and to the right of the Hepatic artery, it is covered by, or included in, the head of the Pancreas, and for a short distance is in contact with the right side of the canal of Wirsung debauching with this duct into the duodenum.

It is fair to assume that many cases of Diabetes are caused by the pancreatic diseases secondary to infection of the biliary tract. Archibald (Surgery, Gynecology and Obstetrics) proved that pancreatitis could be produced by flooding the pancreas with bile thru the common duct with a pressure above normal. The irritation of calculi may cause a spasm of the Sphincter of Oddi (the sphincter muscle controlling the outlet of the common bile duct) with a concomitant flooding of bile and a secondary infection causing chronic inflammation of the pancreas with resulting Diabetes. Many cases are recorded of persistent drainage of the gall bladder with marked amelioration of Diabetic symptoms.

Surgical cases may be divided into two groups—In the one, Diabetes is the essential disease, and the surgical lesion the accident, as for example, carbuncles, gangrene etc. In the other the surgical lesion is the essence and the Diabetes the accident, as when acute appendicitis or choecystitis is found to be complicated with an unsuspected Diabetes.

In Senile gangrene, i. e., Endarteritis, Glycosuria is due to the gangrenous process, and in no way associated with its cause. Diabetic gangrene is more rapid and moist and evinces little tendency to limit itself by a zone of demarcation.

The treatment of cases in the first group is that of election. To laboratory work, medical conferences, active anti-diabetic preparation put the case in the best possible physical condition compatible with the emergency; the time of operation arranged, the choice of anesthesia and hospital environment.

The second group demands surgery of necessity, and the accident of Diabetes has to be disregarded. In all operations, the first thing to be considered is the anesthesia; a preliminary hypodermic of morphine and scopolamin gr. 1/150 about one hour previous to the operation, obtunds the nervous susceptibilities and renders them most receptive to the anesthesia. Spinal anesthesia in se, is probably the most ideal; the nociceptors are cut off, shock and acidosis obviated, and chest complications eliminated.

The technique of Doctor Babcock of Philadelphia has been employed by the narrator. A preparation of stovaine put up in solution and ampules by Wright of Philadelphia under Doctor Babcock's direction has been used. My experience with the method has been ideal; never-

theless, except in cases of intestinal obstruction, I have ceased using and do not recommend it.

In cases of election, local anesthesia combined with nitrous-oxide gas is the anesthesia of choice. Nitrous-oxide in se, is a light anesthesia and gives less muscular relaxation than ether, and combining it with local anesthesia, complete muscular relaxation is maintained. It is pleasant to take, quick in its action, produces no nausea, recovery is immediate, and Crile states, "It is almost a specific against shock." Unfortunately, it is the most difficult anesthesia to give; special training in its administration is absolutely necessary. A trained anesthetist and special apparatus precludes its use in many operations of necessity.

Ether, on account of its Lipin solvent properties, is contra indicated in the Diabetic (Max Kahn-S. G. O. 1920). Crile states "All anesthetics lie among the lipoid solvents, ether, chloroform, nitrous-oxide, spinal, reginal or local anesthesia.

The narrator considers that much of the prejudice against ether is due to theoretical rather than practical grounds. It is a good old stand-by, relatively safe and easy in its administration and is the anesthesia of second choice. It has served us all and is uniformly reliable.

Chloroform is only mentioned to be condemned, not only in Diabetes, but in all conditions requiring anesthesia.

Like Empyemas, Diabetics with gangrene, in the general hospitals, are turned over to the Staff and with the same degree of morbidity. In private practice much can be done by pains-taking effort and individualization. Most clinicians condemn opium; I have found it a valuable adjunct. The indiscriminate use of alkalis should be condemned. Joslin states, "I believe that often a patient threatened with Diabetic coma is sent into actual coma by the careless administration of alkalis."

It is to be remembered that Diabetes is more insidious in onset than Tuberculosis—that a careful examination of the urine practically discloses this condition—and that no operative case is too urgent to have such examination made.

In Discussion.

Dr. William J. Cruikshank said—Mr. President, I have listened to Dr. Murphy's paper and Dr. Allen's discussion of it with interest and with profit. There are two points brought out by the paper which seem to me to merit especial emphasis.

The first of these points is the stress laid by Dr. Murphy on the selection of the anesthetic to be administered to a diabetic patient requiring surgical interference. I agree entirely with Dr. Murphy in his statement that gas oxygen is preferable, in fact it is, in my opinion, the only safe anesthetic to be used in those cases. And its administration in all surgical operations on diabetic patients should become a hard and fast rule. Of course, an anesthetist who is familiar with the administration of gas oxygen should be selected for the work. During the past year I have had the opportunity to observe the effects of this anesthetic on many patients in the hands of the oral surgeon, for extractions and the like. It has been my privilege to examine the hearts of many of them, before and during the administration of gas oxygen. The effects of this anesthetic on the hearts as I have observed them are increased force of the ventricular systolic thrust, which increased force is transmitted to the radial pulse, and a complete absence of cyanosis in all

cases was noted; indeed the capillary circulation was so much improved as to redden the lips, the finger tips and other parts of the body instead of darkening them as we formerly frequently observed when ordinary nitrous oxide gas was administered. This increase in the force of the cardiac systole and its transmission to the radial pulse, together with a complete absence of cyanosis and improvement in the general circulation, may be regarded as competent proof that both the contracting system and the conducting system of the heart are stimulated and that, therefore, gas oxygen is a perfectly safe anesthetic, especially in the conditions under consideration.

The next point which I desire to emphasize is that so interestingly brought out by Dr. Allen; namely, the microörganic element in the production of inflammation of the pancreas especially in the islands of Langerhans, thus producing clinical diabetes. Dr. Allen's discussion and lantern illustrations of the pathological changes occurring in the pancreas as the result of septic infection of the tissues of that gland, likening these changes as he did, to those occurring in heart disease, is to me very interesting. Whether the infection be diphtheritic, syphilitic, rheumatic, pneumonic or what not, is of no consequence to the clinician since it is quite easy for us, in our mind's eye, to picture the results of any and all of them in pancreatic tissues just as we know them to occur in cardiac tissue, when either the valves or the muscularis is attacked.

The damage once done to pancreatic tissue, especially to the islands of Langerhans, disturbance of sugar metabolism is bound to follow, especially in those of unstable nervous systems, the result of lowered resistance.

Referring to Dr. Louria's suggestion that the Hebrew race is said to be prone to diabetes, it is a well established fact that cannot be gainsaid. But it is not a question of religion as Dr. Louria has humorously indicated but one of temperament which must be obvious to anyone familiar with the history of the Jewish race, its persecution, its privations and hardships. No wonder the Jew of today has trouble in the converting of food into energy. His heroic and successful struggle against the most brutal, persistent and unreasoning ostracization which the world has ever known is sufficient to account for his present susceptibility to metabolic imbalance, and his genius in the mercantile pursuits and in the arts and sciences as well. It is the Jew's successful struggle for existence against all odds with all that such a struggle implies that has made him what he is today and which has given him the temperament rendering him susceptible to external impressions, which, when it has engrafted on it a lesion of the pancreas accounts for his glycosuria. A less tenacious race would have long since been blotted out of existence.

Referring to Dr. Allen's method of the treatment of diabetes, I have had considerable experience with it. In the clinic at the Massachusetts General Hospital which I attended a few years ago it was carefully followed to the exclusion of all else, with uniform good results and I have, myself, used it with satisfaction in private and hospital practice.

Case Study Illustrating the Management of Severe Diabetes With Acidosis*

FRANK BETHEL CROSS, M. D., F. A. C. P.

Brooklyn, New York.

T. W., male, age 41, was admitted to the Methodist Episcopal Hospital medical service September 4, 1920, with the history of marked polyuria, ravenous appetite, and loss of 16 lbs. of weight during the three weeks preceding admission.

His *previous medical and surgical history* had been most interesting: he had pneumonia at 15, scarlet fever at 25, fracture of the skull at 10, several minor surgical injuries (infections, fractures, etc.). On July 25, 1916, he was operated for chronic appendicitis and Jackson's membrane at M. E. Hospital by Dr. H. F. Graham. On September 7, 1918, a bilateral partial thyroid lobectomy was performed, also by Dr. H. F. Graham, for an acute hyperthyroidism present for two weeks, although the thyroid had been enlarged for two years and exophthalmos had been noted for five years. During neither of these hospital stays was sugar observed in the urine. After the second operation the patient enjoyed fair health except for severe pyorrhea alveolaris, and during the past seven months many crops of boils.

Three weeks before admission, as mentioned, this patient began to have urgent polyuria, an enormous appetite, extraordinary thirst and loss of flesh at the rate of 16 lbs. within twenty-one days. Additional symptoms were leg cramps and lumbar backache. He came down from Woodstock, Vermont and entered the hospital on September 4, 1920. During the period of study of his case, it was found that the urinary sugar varied from 3.33 to 7.68%, the blood sugar, .30 to .34%, acetone large amount, diacetic acid moderate amount. The total urine in 24 hours: 544 oz. (17 qts.). (Another day 608 oz.—19 qts.) The blood picture: R. B. C. 4936000, Hb 78%, Leucocytes 11000, 79% polymorphonuclears, large mononuclears 3%, lymphocytes 17%, transitional 1%. Previous Wassermanns were negative; none were done on this admission.

The physical examination revealed a tall, slender, sallow patient, weighing about 137 pounds. Only four teeth remained, as the result of his pyorrhea and the dental attack upon it. The cardiac examination was negative except for an occasional extrasystole. The blood pressure: 120 mgm. systolic, 97 mgm. diastolic. The lungs were entirely negative. The abdomen showed the scar of previous operation, but no palpable masses. The eye-grounds were negative except for excavation of discs to only a physiological degree.

Comment: Considerable hesitation was felt at first in instituting the usual Allen plan of control, that method to which Leyton referred in 1917 as the "treatment of alimentary rest," because of the severity of the type exhibited and the presence of so marked an acid intoxication.

* Read before Brooklyn Society of Internal Medicine, March 25, 1921.

It was feared that to establish the starvation regimen might precipitate a fatal ketonemia. That these fears were groundless was shortly appreciated, and it is to *emphasize that no especial consideration be given the acidosis* that this case report is presented this evening. I would call your attention to E. P. Joslin's statement in regard to the treatment of severe diabetes (p. 87, Diabetic Manual, ed. 1918) "In severe, long-standing, complicated, obese and elderly cases, as well as in all cases with acidosis, or in any case if desired, without otherwise changing habits or diet, omit fat: after two days omit protein, and then halve the carbohydrates daily until the patient is taking only 10 grams: then fast."

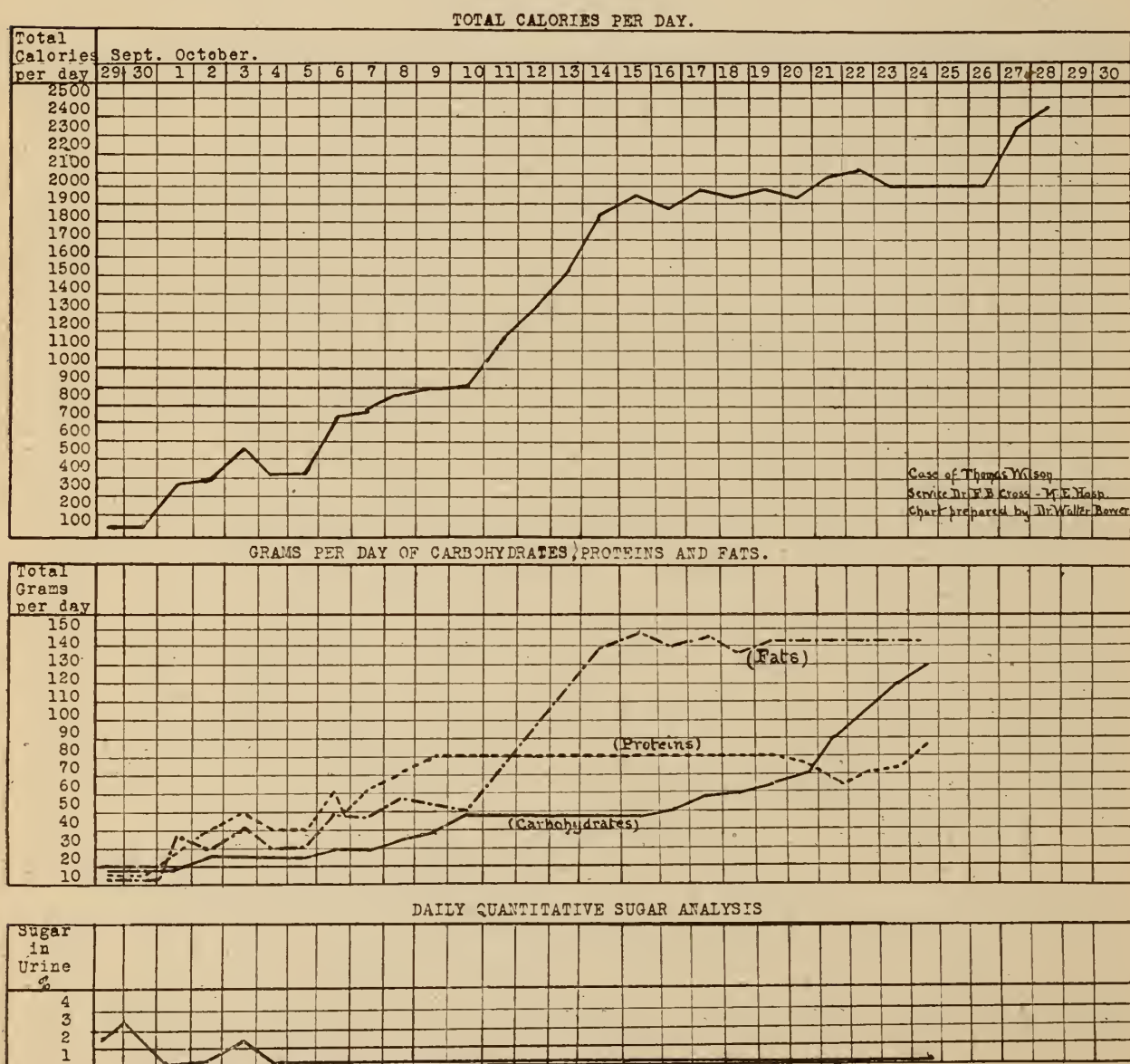
Treatment: Upon the basis of the above advice, the treatment of this case was founded. The steps were as outlined:

2 days fat-free diet,

2 days fat-free and protein-free diet,

Reduction of carbohydrate intake by $\frac{1}{2}$ daily allowance—thus $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$ until 10 gm. is taken,

Then fast.



The patient reached the 10-gram. mark when the carbohydrate had been reduced to $\frac{1}{4}$ the daily allowance, and then he was placed upon his fast (Sept. 26). The urinary sugar was then 5%: there was considerable acetone and a trace of diacetic acid. 200 oz. of urine were passed. By September 30 the patient had become sugar free: trace of acetone and faint trace of diacetic acid. The urinary total was the same:

200 oz. Feedings were then carried on as per the chart, the allowances being for a man of 132 pounds (60 kilo). The carbohydrate was slowly increased, the protein given in about twice the amount of carbohydrate, and the fats maintained midway the two, until the twelfth day of feeding, when the fats were rapidly augmented. On one day only did a trace of sugar re-appear: acetone never returned save in a faint trace on two or three occasions: diacetic acid was observed once only: the urine totals varied from 144 to 384 oz. On October 28 the patient was discharged, having been twenty-six days sugar free: 2500 calories of nourishment were being taken per day and a carbohydrate balance established. No report has been had from this patient since he left the hospital. The likelihood is that his sugar returned, for he was not a man to co-operate with his physician indefinitely.

In summary, attention may be called to the following points:

1. The severe diabetic must be prepared for his fast.
2. The carbohydrate is not entirely withdrawn.
3. The protein can be given in a 2:1 ratio to the carbohydrate.
4. The fat is advanced most cautiously, until its harmlessness is established.
5. The total caloric intake is kept low, and increase is most gradual.
6. The more severe the diabetes, the more conservative should be the feeding schedule.
7. The rule is to disregard the acidosis.

The Sugar Tolerance Curve in Gastro-Intestinal Carcinoma

HENRY M. FEINBLATT, M. D.

Brooklyn, New York.

THE introduction of the newer micro-chemical methods¹ which permit of rapid and accurate chemical determinations in blood and urine has done much to stimulate investigations in metabolism and disease.

Jacobsen,² using Bangs' micro-chemical method, in 1913 studied the effects of the ingestion of fats, proteins, and sugar upon the sugar content of the blood. The blood was examined at short and frequent intervals and a rapid and often marked rise of the sugar content was found after the ingestion of glucose, whereas no increase was found after the ingestion of fats and proteins. In fourteen normal individuals he observed a definite increase in the glucose content of the blood within five to fifteen minutes after the ingestion of 100 grams of glucose, the increase reaching its height within thirty minutes, and descending to the normal level in about 120 minutes. The blood sugar increased from 0.1% to 0.2% in thirty minutes and then quickly returned to normal. He further observed that in patients with diabetes the height reached in thirty minutes was greater and remained so for a longer period of time.

From the Clinical Laboratory, Department Internal Medicine, Long Island College Hospital.

This observation of Jacobsen's suggested to other workers³ the use of some such method in the study of carbohydrate tolerance in other clinical investigations. A considerable number of such investigations has been made in the various endocrine disturbances,⁴ in nephritis, diabetes, arthritis, and other diseases.

Rhodenberg, Bernhard, and Krehbiel,⁵ in 1919, published their observations upon the glucose tolerance curve in 24 cases of cancer, in which they report an increasing hyperglycemia, the blood sugar rising after the ingestion of 100 grams of glucose to 0.18% or 0.2%. This level was attained 45 minutes after the intake and remained or rose higher after a 2 hour period. In a more recent article⁶ the same writers report 27 cases of carcinoma of the stomach and intestines, of which 25 showed a definite alimentary hyperglycemia. These they divided, according to McCaskey,⁷ into three types. Type I, in which the blood is higher than the original at the 45 minute interval, and at the 2 hour period continues at the same level or increases. Type II, in which at the 45 minute period the hyperglycemia is as in Type I but falls to the original figure, or nearly so, at the 2 hour period. Type III, in which the 45 minute specimen is equal to or lower than the original, and the second hour specimen is the same as the original or higher. Of the 27 cases of gastro-intestinal carcinoma described, 15 were Type I, 10 were Type II, and 2 were Type III.

In September, 1920, Friedenwald and Grove⁸ reported a total of 32 cases of cancer of the gastro-enteric tract, all of which showed a definite hyperglycemic curve of Type I. In 55 other cases, including 45 cases of benign affections of the gastro-intestinal tract, no such curve was found. They described 2 cases operated upon for carcinoma which gave perfectly normal sugar tolerance curves. These were found to be non-malignant, one being a case of non-malignant stricture, the second a chronic gastritis with pylorospasm. A third case of tumor with a diagnosis of cancer cleared up with antiluetic treatment.

Our observations with regard to the value of the test in carcinoma have been such as to confirm the work of Rhodenberg and Friedenwald.

Technic of the Test

After a night's fast the patient is given 100 gms. of glucose in a cup of black coffee. Venous puncture is made 5 minutes before the ingestion of the sugar, 45 minutes after ingestion, and again 2 hours after the intake. In each instance 5 cc. of blood are drawn into a tube containing a few crystals of potassium oxalate, and then promptly analyzed, using Folin's¹ new micro-chemical method. This method has proved most accurate as well as most rapid. Owing to the fact that some bloods undergo very rapid glycolysis, it is important to have the blood examined as soon as possible after drawing.

In a normal individual⁴ the blood sugar rises very quickly after ingestion of the sugar, reaching its height, 0.13%, in about 30 minutes, and then gradually falling to normal in an hour and remaining there. The hyperglycemia in those fatigued reaches a higher figure, 0.15% or 0.16% and recedes to the normal level only after an hour or an hour and a half.

Employing the above technic sugar tolerance tests were made upon 56 cases grouped as follows:

1. Gastro-intestinal carcinoma in which the diagnosis was confirmed by either operation or autopsy.

Sugar content in milligrams per 100 cc. of blood

5 minutes before ingestion	45 minutes after ingestion	2 hours after ingestion	
70	250	220	carcinoma with metastasis confirmed by operation
83	222	200	carcinoma stomach, biopsy
100	217	250	carcinoma esophagus, biopsy
117	222	222	carcinoma stomach with metastasis
100	133	200	carcinoma stomach, con- firmed by autopsy
90	200	220	carcinoma stomach, con- firmed by autopsy
105	200	166	carcinoma stomach, con- firmed by operation
71	125	155	carcinoma stomach, found at autopsy, not diagnosed clinically
153	222	333	carcinoma of splenic flex- ure of colon, confirmed by operation
255	500	666	Same case as above
220	250	285	carcinoma stomach, con- firmed by operation
125	666	666	carcinoma rectum, confirm- ed by autopsy

2. Gastro-intestinal carcinoma, clinically diagnosed without operation or autopsy:

5 minutes before ingestion	45 minutes after ingestion	2 hours after ingestion	
80	166	142	carcinoma stomach, died, no autopsy
142	128	230	carcinoma stomach, died, no autopsy
83	250	400	carcinoma stomach
133	210	156	carcinoma stomach

3. Non-malignant gastro-intestinal affections:

80	83	111	peritonitis, tuberculous
105	117	112	sprue, died; organism iso- lated
100	166	125	catarrhal jaundice
100	285	80	cholecystitis
91	181	117	peritonitis, tuberculous
70	185	82	hepatitis, with jaundice
111	153	133	tabes dorsalis
100	200	153	chronic appendicitis
117	181	142	chronic appendicitis
100	128	235	pernicious anemia
142	250	250	gastric ulcer, confirmed by operation

4. Arthritides:

95	166	166
112	180	132
91	181	117
105	173	95
100	105	125

5. Diabetes mellitus:

5 minutes before ingestion	45 minutes after ingestion	2 hours after ingestion	
333	450	666	
181	666	666	
222	500	500	
118	200	400	
80	222	333	
125	250	142	questionable case

6. Miscellaneous cases giving a Type I reaction:

166	500	450	polyglandular disease
200	363	333	toxic optic atrophy, etiology unknown
153	222	250	hyperthyroidism and epilepsy
186	322	400	hypertension, obesity
100	222	146	dyspituitarism
111	286	181	hypertension
153	500	400	hypertension
111	286	250	hypertension, artificial men- opause
80	192	189	neuro-retino-choroiditis, etiology unknown
90	333	500	polyglandular disease

7. Miscellaneous cases giving Type II and Type III reactions:

96	181	133	epidemic encephalitis
100	125	100	tertiary syphilis
80	130	70	cerebral hemorrhage intra- ventricular
190	285	117	tertiary syphilis aortic regurgitation
100	181	111	acute bronchitis
100	180	105	bronchial asthma
111	125	111	cirrhosis of liver with ascites
80	153	75	chronic glomerular nephritis

CONCLUSIONS:

1. Lowered sugar tolerance may be present in many diseases other than gastro-intestinal carcinoma. These generally do not give the clinical symptoms or physical signs of carcinoma and may easily be ruled out.

2. The sugar tolerance test is of distinct value as a means of differential diagnosis between carcinoma and other gastro-intestinal diseases.

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Case Reports of Eclampsia

ROBERT E. COUGHLIN, M. D.

Brooklyn, New York.

BETWEEN the dates, November 15th, 1920 and April 15th, 1921, a period of five months, ten patients with Eclampsia were admitted to my service in the Norwegian Hospital. The following are reported in regular order. They are fairly typical of the class of cases we see in the neighborhood from year to year. The notes are taken from the hospital histories, written by the internes and the bedside notes of the nurses on duty.

Case 1. Mrs. T. P. Age 18 years. Hospital case No. 3068. Occupation, housewife. Nativity, U. S. Married. White. Primipara.

Previous history: Severe attack of diphtheria when a child. Pelvic history: Menses began at 14 years. Regular, 30 day type without pain. Amount normal. Leucorrhoea slight. No cystitis. Married ten months. No miscarriages.

Present pregnancy, vomiting, headache, edema, convulsions and constipation.

Last menstruation, February 26, 1920. Confinement due November 30, 1920. Quickening felt in May, 1920.

General condition very poor. Circulation very feeble, Heart very rapid and feeble. No varicosities. Lungs, normal. Edema of

both extremities. Abdominal wall firm. Height of uterus above symphysis 29 c. m. Position L. O. A. Child's heart not heard. Presentation cephalic. Genitals, perineum intact. Vaginal secretion present. Cervix in posterior position. Os externum admits one finger, Varices present. Vagina roomy. Os internum does not admit one finger. Blood pressure reading: Systolic 180, Diastolic 100.

Urine examination, Nov. 22, 1920: Color, Amber. Odor, urinous. Reaction, acid. Sediment, flocculent. Heavy cloud of albumen. Glucose, negative. Acetone, negative. Casts, granular and hyaline. Leucocytes, present. Epithelium, present.

Blood chemistry showed 3 m. gr. of creatinin in 100 c. c. of blood.

Patient was admitted in convulsions at 11 A. M., November 21, 1920. Temperature on admission, 102/5. Pulse 130. Respirations, 25. Highest temperature while patient was in the hospital, 101. Pulse rate and blood pressure were the highest on admission. Lowest blood pressure Nov. 29. Systolic 140, Diastolic 95.

Treatment and course of the diseased condition: Tincture of *Veratrum Viride* was administered by hypo in 15 minim doses every 15 minutes till pulse was reduced to 70 per minute. Colonic irrigations with sweetened water were given every four hours. Hot packs were given every four hours while there was a reaction.

At 11:15 A. M. a convulsion occurred which lasted $\frac{1}{2}$ minute. At 11:30 A. M. a convulsion occurred which lasted $\frac{1}{2}$ minute. At 1:30 P. M. the pulse was taken and found to be 60. There were no more convulsions after this time. *Veratrum Viride* discontinued for the time being.

November 22, 1920, *Veratrum* given in 15 minum doses every four hours by mouth. At 10 A. M. labor was induced by catheter, stylet being placed in uterus, cervix and vagina packed.

November 23, 1920, at 5:10 A. M. foetus, placenta, packing and catheter all expelled.

Recovery prompt and uneventful. Mother and babe left the hospital in good condition.

Case 2. Mrs. F. C. Age 18 years. Hospital case No. 3088. Housewife. Nativity, U. S. Married. White. Primipara.

Family history negative. Previous history, negative. Menses began at 14 years. Regular 30 day type. No cystitis. No leucorrhea. No pelvic disease. Married nine months. No miscarriages.

Present pregnancy: Not attended by an outside physician. Admitted in convulsions. Six convulsions occurred before she was admitted to hospital.

Last menstruation began Feb. 29, 1920. Quickening in April, 1920. Confinement due December 6, 1920.

Symptoms during pregnancy: Vomiting, headache, edema and convulsions.

General condition poor. Circulation fair. Heart beats of fair quality, no murmurs present.

Varicosities present. Edemapresent, general in character. Breasts and nipples well formed. Abdominal wall firm. Uterus, height of fundus, 26 cm.

Child's heart in lower right quadrant, 138 per minute. Bowels of patient regular. Contractions of walls of abdomen present. Foetal movements present. Presentation, cephalic in brim. Position, R. O. A.

Pelvis measurements: Interspinal 25 cm. Intercrestal 27 cm. Ext. Conjugate 20 cm. Diagonal Conjugate 11 cm. Internal Conjugate 10 cm.

Perineum intact. Vaginal secretion present. Cervix anterior position. No lacerations. External os admitted three fingers. Varices present. Pelvis roomy.

Labor pains began at 9:40 P. M., November 23, 1920. Membranes ruptured spontaneously at 11:45 P. M., November 23, 1920. Cervix effaced at 12 o'clock midnight. Child born at 12:45 A. M. Placenta expelled at 1:20 A. M. Child born alive. After delivery convulsions continued for 15 minutes.

Blood pressure on day of admission, Systolic 145, Diastolic 45. Pulse pressure 100. Pulse 110, Temp. 101. Medication started immediately. Convulsions occurred about every twenty minutes. First vaginal examination at 10:40 P. M.

Treatment and course of the diseased condition: Tincture of Veratrum Viride was administered hypodermatically fifteen minims every fifteen minutes till pulse was reduced to at least 70. Rectal injections and high ss enemata every four hours. Hot packs every four hours while there was a reaction.

Admitted to ward on November 23, 1920, at 7 P. M. Tincture of Veratrum Viride was continued till November 28, 1920. Pulse came down to seventy on first day. Convulsions continued throughout the first day each lasting from $\frac{1}{2}$ to one minute.

On November 24 a convulsion occurred at 12:10 A. M. the same lasting $\frac{3}{4}$ of a minute. At 12:40 another one occurred lasting 1 minute. At 4:35 A. M. another convulsion occurred lasting $\frac{1}{2}$ minute. At 5:40 a convulsion last $1\frac{1}{2}$ minutes. At 7:10 a convulsion lasting 1 minute. There was cyanosis at times. Highest temperature $103\frac{1}{2}$. Highest pulse rate 120. Highest respirations 40. Highest blood pressure reading S. 180 and D. 80. Lowest blood pressure reading while patient was in the hospital S. 140, D. 70.

Urine examination: November 24, 1920, high cloud of albumen. Very light in color. Specific gravity 1010. Very heavy sediment. Both granular and hyaline casts present in specimen. Epithelium present. Acetone negative.

Blood chemistry showed retention of 2.4 mg. of creatinin in 100 cc. of blood.

Later urine reports showed a steady and gradual improvement. Both mother and infant left the hospital at the end of three weeks' time in good condition.

Case 3. L. G. Age 20 years. Housewife. U. S. Married. White. Primipara.

Family history negative.

Previous history, typhoid and measles. The former when 15 years of age and the latter when seven years of age.

Menstruation normal.

Married eleven months.

Bowels costive.

Present pregnancy: Vomiting, headache, edema, convulsions. General condition poor. Circulation fair. Heart very rapid. Edema of both extremities. Last menstruation March 28, 1920: Quickening June, 1920. Confinement due January 23, 1921. Abdominal wall firm.

Uterus, fundus 25 cm. above symphysis L. O. P. Child's heart not heard. Presentation cephalic.

Pelvic measurements: Interspinal 26, intercostal 28, ext. conjugate 20, internal conjugate 10.

Cervix posterior.

Blood pressure reading, Systolic 120, Diastolic 80.

Patient in convulsions when admitted to the service. When not in convulsions was semi-conscious.

Urinary analysis: Amber color. Specific gravity 1024. Albumen, a high cloud present. Many granular casts. Catheterized specimen.

November 29, no casts but high cloud of albumen. Blood in urine. Blood urea 17.5 mgr. per 100 of blood.

History of labor: Pains began at 6 P. M., Nov. 26, 1920. Membranes ruptured at 3:45 A. M., Nov. 27, 1920. Child born at 4:38 A. M. Placenta delivered at 4:55 A. M. L. O. P. position was turned to L. O. A. position during delivery. No lacerations. Infant still born. Placenta and discharge had a most offensive odor. Membranes incomplete. There were no convulsions after delivery.

Treatment: Tinct. Veratrum Viride 15 minims every 15 minutes till pulse was reduced to 60. (Hypodermic medication.) Caster oil, one and a half ounces in one dose was given by mouth. Colonic irrigation of normal saline solution was given every four hours. Hot packs were administered every four hours while there was a re-action. On November 27, 1920, the veratrum was given every four hours by mouth. Basham's mixture was also administered.

There was no return of the convulsions.

The highest temperature while the patient was in the hospital was 101. Highest blood pressure reading, Systolic 140, Diastolic 100. Highest pulse rate 120. Highest respirations 25.

Subsequent blood chemistry showed retention of 1.8 mg. of creatinin in 100 cc. of blood.

Patient left the hospital in very good condition, but a urinalysis showed a trace of albumen.

The Pelvic Appendix

FRANK D. JENNINGS, M. D., F. A. C. S.

Brooklyn, New York.

IT would seem almost an absurdity to appear before an audience of medical men in this day and age with a paper on as commonplace and hackneyed a subject as Appendicitis on which presumably the last word has been written. However, contemplation even of the commonplace may be as profitable practically as consideration, of, shall we say, the nutritive value of vitamins, especially when we reflect that the death rate of Acute Appendicitis in general hospitals still ranges from 4 to 6%. That, as it stands, is a noteworthy improvement

* Read before the Academy of Pathological Sciences, Hotel Astor, December, 1920, and Medical Society of the townships of North Hempstead and Oyster Bay and the City of Glen Cove, May, 1921.

over the mortality of two and three decades ago but progress must still be made if the mortality is further to be lowered.

The diagnostic obstacles which acute infection of the appendix offers are too well known to be enumerated here. There is no other common intra-abdominal condition which is overlooked as often or as frequently confused with other pathology as Acute Appendicitis. One of the outstanding reasons for this is, of course, the fact that the appendix is not a fixed organ nor is the bowel, from which it springs, fixed, so that, ignoring entirely the pathological changes as an element in the diagnosis, we have to deal with a movable appendage which is often the site of active disease.

It is this phase of the appendix to which I desire briefly to call attention to-night. Reclus says that "the vermiform appendix is the diverticulum of a diverticulum, the caecum of a caecum." In about 90% of individuals it branches from the inner and posterior wall of the caecum, one inch below the ileo-caecal junction. Its direction is so variable that it is impossible to classify it with any accuracy. Murphy used to say in his terse, forceful way that in over 50% of cases it points up and in or down and in.

Of the latter group—down and in—the appendix may rest in the iliac fossa or may hang over the pelvic brim or actually be in the cul-de-sac, even at the bottom of the pelvic pit. It is obvious that in such low lying cases the caecum and colon must possess a long meson and it is of interest to recall that embryological development determines the position and form of both adult caecum and appendix, the determining factor being the time at which during their development they contact with the posterior abdominal wall. If coils of intestine become interposed between them, there is no fusion and both caecum and appendix are free and pendent. If, on the other hand, there is no such interposition of bowel then caecum contacts early with the posterior abdominal wall, fusion is likely to occur relatively high and any further descent is accompanied by a sagging of the anterior caecal wall and caecal rotation to the left. The appendix naturally follows the caecum in these various movements.

Clinically it is not uncommon to see variations from the normal due to faulty or incomplete development, ranging from the left sided appendix, due to failure of the colon to rotate, to the subhepatic appendix, due to failure of the caecum to descend.

However, excluding the congenital malformations and considering the average run of cases as they come to the operating table, the pelvic appendix is common. A review of the case records of the last seventy one cases of Acute Appendicitis, operated on by myself or my associates, covering a period of approximately 15 months, with an age range of 22 months to 66 years of age, the location of the appendix was as follows:

Recto-caecal or caecal	13
Iliac Fossa	13
Pelvic	13
Anterior (Incomplete fusion)	1
Not searched for	5
Free	9
Not stated	17

Thus, it will be noted that of the 49 patients in whom the situation of the appendix was recorded, thirteen were pelvic roughly

26½%. It is my impression that even a larger proportion would be found if the location had been made a definite record at each operation.

Five of these patients died, a mortality of 7%. Of the five, two were pelvic cases, one expiring on the 25th day post-operative, the other in 48 hours. In the other three, the appendix was not found, only drainage being instituted; these deaths occurring in 8, 10 and 24 hours respectively. So that pelvic appendices contributed 40% of the mortality.

It is of interest as well to note that of the thirteen cases of pelvic appendicitis the interval of time between the onset of symptoms and operation was definitely greater than in the other groups. In three cases it was one day, three cases two days, one case 54 hours, four cases three days, one case each, five and six days respectively. It is not meant to convey the impression that in the other classes diagnosis in every case was made earlier but that the average length of time taking the whole class was much shorter.

With these observations in mind it would seem that this group, i. e., that group composed of appendices in the pelvis, offers some diagnostic difficulties and a somewhat higher mortality, the latter, in my judgment, being due to the former. That is to say, considering those cases from their inception they are recognized usually later when, obviously, greater and more extensive damage has been done, this in spite of the commonly known fact that the pelvic peritoneum has greater resistance against infection than the peritoneum has anywhere else. This is borne out in these cases by the fact that most of them had gone on to abscess formation and practically all were drainage cases, so that in addition to the mortality incidence they carry a greater morbidity and a longer hospital stay.

It might be said that, in analyzing the histories, no particularly noteworthy symptoms were noted. The onset in two of them was with headache followed by the usual syndrome. One walked around four days complaining only of abdominal soreness and vomiting and at operation on the sixth day the appendix was found completely sloughed off. One was diagnosed as grippe and so treated for three days. However, the remainder began with pain, nausea and vomiting as is common.

In the diagnosis of this type of case there are two features which should be emphasized. First, that the pain and tenderness are as a rule more mesial than usual. Taking Lanz's point as the one usually indicative of the location of the base of the appendix (that is a point at the junction of the outer and middle thirds of a line joining the anterior superior spinous processes), it will be noted that the maximum tenderness and pain are somewhat lower and more central. That is in palpating the abdomen one from force of habit or as a result of carrying a fixed idea will look for tenderness at a point higher and more external when as a matter of fact with this type of appendix it will be much closer to the medial line and low, frequently being noted just above the symphysis pubis. This will vary depending on just how deeply the organ lies in the pelvis. I may say that frequently this tenderness will exist without spasticity of the abdominal muscles, in fact, I would go further and say that I have seen advanced cases in which tenderness was the only objective abdominal sign though there is often conveyed to the examining fingers a feeling of tension. This is especially true, of course, in the cases of pelvic abscess.

The second and more important point is the great value of rectal examination, or vaginal in the parous woman. In selecting a title for these few remarks I was strongly inclined to christen them "An ode to rectal examinations." Every case of pelvic appendicitis can be diagnosed by rectal examination and no examination of an individual suffering from lower abdominal pain is complete without such examination. I often wonder what there is about a digital exploration of the rectum that deters so many men from attempting it. Is it mistaken consideration of the patient or merely fastidiousness? Surely a fragrant finger and a live patient are to be preferred to a lily white digit and a dead one. It reflects no credit on either our thoroughness or our acumen when lives are lost or convalescence needlessly protracted because of failure to observe a simple diagnostic precaution.

Seen early, rectal examinations will disclose sensitiveness of the serosa of the cul-de-sac, later induration and tenderness, still later bulging of the cul-de-sac and tenderness denoting pelvic abscess.

I would like to cite three illustrative cases. The first is—J. W. M.—28 yrs. Bookkeeper. Admitted Jan. 21, 1919. Family and previous history had no bearing on present trouble. Present history: Two days prior to admission he developed rather severe, general abdominal pain which persisted all night long. He induced vomiting without relief. The next day he vomited involuntarily, pain was present but less severe and he stayed home. In the afternoon he felt better and went out and called on relatives and in the evening went to the theatre but did not stay until the performance was over as the pain had become rather worse. His bowels were loose and he had some pain on voiding. On arriving home he went to bed but had an uncomfortable night. The next day being Sunday he went to church and en route home consulted a physician who gave him the same advice as another physician had given him the day before, to clean himself out well. One of them made an abdominal examination, the second none at all. The cathartics thus ordered were vomited—fortunately.

In the afternoon a third doctor was called who, in turn called me. At that time the T. P. R. were 103—104—24. Face flushed. Head, neck, thorax negative. Abdomen moderately distended with very slight tenderness in the lower right quadrant and a flaccid rectus. Rectal examination disclosed induration with exquisite tenderness in the cul-de-sac. A diagnosis of perforated pelvic appendicitis was made and he was removed to Saint Catherine's Hospital where operation revealed a gangrenous appendix, perforated at its middle, embedded in the parietal peritoneum of the true pelvis. Drainage with recovery. Hospital stay 21 days.

The lesson is plain. A rectal examination 48 hours previous to operation would have cleared the case up, would have brought him to operation so much sooner, it would probably have been possible to close him tight and economically a great deal would have been saved, chiefly time for him.

The next patient was not in my service but through the courtesy of Dr. McAteer, of our Staff, I am permitted to quote it.

The patient was a boy, 16 years old, of Jewish parentage, rather frail in type. He was admitted September 24th, 1920, with a history of having been sick six days. The onset was sudden with general abdominal pain in the form of cramps, which were relieved after a

time but recurred the next day centering around the umbilicus. He vomited profusely. Bowels moved daily.

On admission the T. P. R. were 104.2—90—24. White blood cells 18,000. Polys. 80%. Physical findings were negative except for the abdomen which was distended and tympanitic throughout. There was some tenderness in the right lower quadrant and the abdomen was tense but there was no rigidity.

The feeling was that he had peritonitis but there was some doubt as to the underlying factor. I was asked to look the boy over, happening to pass through the ward shortly after his admission, and suggested the desirability of rectal examination. This was made and disclosed tenderness and bulging in the cul-de-sac. At operation an appendix gangrenous at the tip, wrapped in omentum and hanging over the brim was found. There was free pus. Drainage, wound sloughing, fecal fistula and death from exhaustion and sepsis on 35th day post-operative, all of which might have been prevented had some doctor put his finger in the rectum four or five days sooner.

The third and last was a fine, clean cut lad, eleven years old, of Irish parentage, blue eyed, sturdy, a ball player to whom "Babe" Ruth was a divinity. He was admitted October 19th, with a story that on October 17th, before going to bed he ate a large apple. About 3 A. M. he awoke and vomited three times at short intervals. A little later came abdominal cramps. In the morning a physician was called who made an abdominal examination and could find no evidence of appendicular involvement of which he was, however, suspicious. He left with the advice that he was to be called the following morning if the boy was no better. Through the day and night the pain grew worse. He received nothing by mouth except water which he vomited. The next day the doctor was again summoned, but being busy did not see the boy until late in the evening when he sent him to Saint Catherine's. The T. P. R., on admission were 102—126—32. White cell count 19,800. Polys. 88%. Physical findings were moderate distention of abdomen which was tympanitic especially over lower abdomen. Tenderness throughout, slightly more marked in right lower quadrant, no rigidity, no mass felt. Rectal examination gave the usual picture of tenderness and induration and operation showed the usual pathology, a gangrenous appendix, perforated in the middle, tightly bound down in the serous lining of the pelvis. There was some free, foul smelling pus. Drainage and death in 37 hours from Acute Peritoneal Sepsis.

Pathological and bacteriological data in these cases have been omitted for the sake of brevity and as having no bearing on the point which is sought to be made.

Summarizing then we might say that the following points should be emphasized:

1. That the appendix and caecum are not constant in position and are often mobile.
2. That the current fixed idea of being governed absolutely in a diagnosis of Acute Appendicitis by the absence or presence of tenderness at the so-called McBurney's point is wrong.
3. That the appendix is pelvic in 26½% of cases.
4. That failure to make a rectal examination in one who has acute abdominal pain will lead to many delayed diagnoses and delayed operations, meaning increased morbidity and mortality.
5. That with acute inflammation of a pelvic appendix pain and

tenderness are at points lower and more central than we are accustomed to look for.

In closing, permit me to say I am quite sensible of the fact that I have brought you nothing new, and that is because I have nothing new to bring you. However, if it has brought into focus old facts, now forgotten, or if it will serve as a reminder that rectal examinations when indicated are as important as taking the temperature or counting the pulse or estimating the blood pressure, then the evening will not have been entirely wasted.

A Conservative Estimate of Radium in Gynecologic Practice*

CHESTER FORD DURYEA, M. D.

Brooklyn, New York

SURGERY as practiced by the skilled artisan has achieved fame in gynecology that could hardly be marred by any word of criticism that I could offer, and any small degree of additional help we may render with radium will redound further to the surgeon's credit. As a rule surgical procedure is simple, safe and effective in the hands of its masters, but unfortunately there are all types of surgeons just as we now recognize that there are good and bad radium therapists.

In 1920, nearly 100,000 people died of cancer in the United States; of this number about 25% suffered from malignancy of the female generative organs. Cancer during the past 20 years has shown us an increased mortality of 30%. It is not to be wondered that the profession and laity, as well, are deeply interested in any therapeutic aid that will serve to stem this mighty current or even ameliorate the sufferings of the doomed patient.

Within the bounds of the short time allowed me, I want to bring to your attention a few facts concerning the physiochemical influences of radium radiation and an estimate of its practical usage in both uterine cancer and in uterine hemorrhage not of malignant origin.

Therapeutically and scientifically we must make clear, that radium is not to be classed as a cancer cure. Up to date, there is no such thing. The action of radium on the human tissues follows certain fixed and immutable laws. If we determine their limitations and value and make use of these laws, we can accomplish results in many pathological conditions including malignant disease. The histologist tells us that radium has such and such an action on normal tissues and a certain action on pathological tissues by which the structures are altered. In a general way, radium produces an intracellular chemical change on normal as well as upon pathologic tissues. These changes vary in extent depending on many conditions the amount of radium used, the length or time of the application, the distance of the radium from the tissue, type of mass and its density and vascularity, the stage of the affection and the constitution and vitality of the patient. Different normal tissues vary in their degree of resistance. Diseased tissues

* Read before the Nassau County Medical Society, May 31st, 1921.

are more susceptible. In certain cases, cancer cells are absorbed and disappear, while normal structures are unchanged. Hannemann, a foreign pathologist, reported as follows on sections of a specimen of cervical cancer after intense radiumization: "On the fifth day there is a swelling of the cell protoplasm, hyperchromatosis, and pyknosis of the nuclei. Five or six weeks later the cancer cells are entirely gone, the connective tissue and blood vessels show hyaline polymorphonuclear leukocytosis, and often giant cells are present. Later this necrotic and inflammatory tissue is replaced by ordinary connective tissues. Such changes invariably occur."

Ewing reports well-marked evidence of endarteritis, thrombosis, and plugging of vessels and the lymphatics, together with changes in the cell nuclei and the production of new connective tissue cells, as well as a marked fibrositis.

Radiation is easily carried beyond toleration of not only the healthy tissues, but of the malignant disease, especially where for instance, the cancer is very extensive and its infiltration very diffuse. Extra zealous radiation may cause so much destruction of tissue that the patient is overwhelmed by the toxine thus produced and fatal issue results earlier than otherwise expected. Such a termination might easily be considered as belonging to the class of failures, reported as due to the stimulation of the growth of the cancer. This untimely result may be avoided to a certain extent by proper technic, and a watchful interest in the patient's metabolic and eliminatory function. Our knowledge of the therapeutic action of radium makes it possible to define certain pathological conditions which radium will affect favorably. In non-malignant growths, radium is indicated wherever the knife or scissors or acids or cautery or other surgical implements or procedures leave mutilation or distortion, or interferes with function or with comfort of life. In cancer radium does not supersede surgery where surgery is available and practicable, but if it is to be our only resource in malignant disease, surgery must remove every particle of the growth, in fact, it must go wide and deep enough to remove all tissue where the cancer cells may be suspected in quantity to suggest a possible recurrence. If the knife cannot do this, then we must rely on radium to help it, or serve in its place. In recurrence, radium is indicated, or at least it may be employed as a last resort in default of any other resource.

We will be forced soon to recognize that the gynecologist and the radium therapist, each trying to work out their theories, will fail; each must lean on the other. Furthermore, to-day we feel that radium therapy can only be properly instituted when it combines the support of the pathologist, biochemist, physicist, and clinician.

Cancer of the uterus must anatomically be considered under the subdivision of malignant involvement of the cervix and of the fundus. The next important point of decision relates to the operability. Discriminating judgment is of utmost importance and promptness should be the watchword. Never should we wait a day to "see what turns up." In the light of our present understanding, every inoperable uterine carcinoma case should be classed as a radium case; and I will go a step further and advance the opinion that all carcinomata of the cervix should be given radium as the method of election. Not infrequently do inoperable conditions of the uterine body present under radium treatment such marked reduction of infiltration of the parametrium and mobility within the pelvis as to again place them in the

operable class. Although we are fully in accord with urging surgical aid in every case of cancer of the uterus, we venture the suggestion that, in our opinion, all such cases should receive preoperative radiation two to three weeks before surgical procedure.

As early as 1910 certain gynecologists showed unrest at the high mortality of cervix cases, and in 1914 Dobbert tested radium in 24 cases. Other investigators, including Cheron, Doderlein and Pozzi followed, and soon discarded the Wertheim operation. We are now all familiar with the fact that during the past two years remarkable progress has been made in the United States with the acceptance of radium for cervical cancer.

The advent of radium has been welcomed by the surgeon who has for all time attempted to do his best in face of discouraging statistics. The recent tributes of such men as Dr. John Clark of Philadelphia, the late Henry Janeway, the work reported at the Mayo radium clinic accentuate my own statements. A conservative estimate of our cervix cases gives us about 30% clinical cures under radium. Where the process fails to control, the palliative influences in uterine cancer are of inestimable value. Quickly is the pain lessened, the discharges are less offensive and frequently hemorrhage ceases. At times, almost as a miracle, the patient's health returns to normal, possibly to suffer an uncontrolled relapse a few months later. Palliation with radium may still aid with cardinal symptoms.

Radium dosage in cancer of the uterine cervix is now well standardized. Anatomically this region is so located that it can be attacked with comparatively small amounts of radium, inserted within the canal, allowing the cervical walls to act as the screen against injury to adjacent structures. As a rule the initial treatment should be sufficiently intensive to work complete destruction of all malignant tissue. This theoretical dosage we usually fortify with two more treatments at intervals of two to three weeks.

There are cases of hopeless and inoperable type that are referred for radium treatment, where inflammatory manifestations of the pelvis, serve as a contraindication. Such cases do not respond well to radium. Chronic congestive processes turn to acute, and pain of aggravating type results.

For a few moments, I want to direct your attention to conditions in daily practice, relating to the female generative organs, where radium plays a most important part. I refer to idiopathic uterine hemorrhage. With the assurance of correct diagnosis, I am constrained to assert that, with radium under proper technique, results can be secured in such hemorrhage, incomparable with the best findings of any other radical method of treatment. My attention to the value of the physico-chemical action of the rays was accentuated while in France, when opportunity was offered me to check up the reports of A. Beclere, Roentgenologist of the Hospital of St. Antoine, Paris. Analyzing the success that followed this worker's cases, which to the second year held in over 90% of the patients treated, I found that practically all of the cases had been referred to him as surgically unfit. Therefore the argument for physical therapeutics was conclusive. During the past two years my own records with the use of radium materially improve on the above percentage; seemingly radium acts almost as a specific. So strong a statement would certainly deserve a challenge unless it were carefully qualified. Radium as well as the X-ray must be classed as wonderfully destructive agents, which in the hands of the novice, may work injury

of the dangerous type. With aid of the physicist the clinician brings about a control of the rays that permits correct dosage estimation.

Every surgeon meets commonly types of myomata uteri, chronic hemorrhagic metropathies, and troublesome resisting endometritides, that demand something more than direct surgery. Again, often does there present a case rightly acceptable as surgical, that brings a history of such excessive hemorrhage, as to make operation a dangerous hazzard. Personally, I feel that it is the latter condition which has drawn the surgeon to radium and the return he has seen, in the immediate control of hemorrhage, has sent him away with strong convictions. *Hemorrhage Types*: 1. Fibromata, 2. Hypertrophy or hyperplasia, 3. Chronic endometritis following abortion or curetage, 4. Chronic metritis, 5. Menopause, 6. Young girls (endocrinal).

Radium by no means displaces surgery in the treatment of myomata, but in the selected case it must be the method of choice. We must always remember that radium in fibroids reports no primary mortality. Of course no one would trust the untrained radium-therapist more than he would the untrained surgeon. As far as our duty is concerned in fibroid tumors, Schmitz of Chicago, outlines it best: "A fibroid not causing symptoms does not need any medical interference, a bleeding fibroid demands arrest of hemorrhage, and a tumor causing pressure pains, or undergoing degeneration, surgical removal." Radium acts as Nature's curette and hemostatic when applied to the endometrium. Complete destruction of the endometrium causing a cessation of menstrual life or premature climacteric may be secured if desired. In young women of unmarried type or of child-bearing age, it is possible to control hemorrhage without destroying menstrual function. The young patient requires heavier dosage to influence amenorrhea than the woman over 40 years. Surgery is advocated in fibroids of pedunculated or submucous type, as well as in all processes of degeneration. At times operative procedure may be contraindicated, due to heart and kidney degenerations, in which case we advocate radium.

Chronic Endometritis with its accompanying leucorrheal discharge is extremely common among fully 50% of the women. The extent of the associated hypertrophy and hyperplasia may be difficult to estimate. Following the usual methods of treatment, curetage and active caustics the conditions may clear up, if recurrence is troublesome a single intruterine application of radium generally produces lasting relief. Radium dosage here calls for the use of a 50 mg. tube, in a screen of $\frac{1}{2}$ mm. gold, applied for a period of 4 to 8 hours, and repeated in four to eight weeks if required.

The menopause quite frequently brings with it a series of grave hemorrhagic tendencies that may threaten life. Often all remedial measures fail to relieve and seemingly with Providential importance, we are brought to radium. Prevalence of uterine hemorrhage in any woman over 40 years of age should be our warning to adopt every measure at command to secure a true diagnosis particularly concerning malignancy. Although radium may serve to bring about a cessation of hemorrhage at menopause, there follows at times, for a few months, a train of nervous symptoms and altered metabolism that responds favorably to organotherapy.

We hesitate in advocating radium for excessive hemorrhage in young women under 30 years of age, although our records cover 35 such cases, and at least 22 of these follow a history of normal men-

struation following the treatment. Four cases were forced into complete cessation with menopause symptoms. During the last two years better results are presented. However, wherever hemorrhage is of the dangerously excessive type, we have no choice. Radium is the best agent at our command. We advise, however, that radium be applied packed well up in the cul-de-sac instead of within the uterus for the first treatment and possibly a second unsatisfactory result may then demand the intrauterine method.

In presenting radium as a remedy for the control of hemorrhage in benign conditions affecting the uterus, my main thought is to have you appreciate the importance of the measure, in that it quickly brings the patient into a better state for operation, or whatever is to follow. The reactions following radium treatments, are mainly of gastro-intestinal type: nausea for not longer than 24 hours is common.

The likelihood of favorable results may be recognized in the following figures: In 192 essential uterine hemorrhage cases during the past four years at the Radium Institute over 90% have responded to radium with entire satisfaction. Control of hemorrhage and immediate cessation of the flow occurred in 38% of the cases. Cessation of flow after the next period occurred in about 50% of the cases. In 48 of the cases who were over 40 years of age, premature menopause was evidenced in 65%.

Radiation over the ovaries will at times control uterine hemorrhage almost as effectively as the direct intrauterine application.

Gentlemen, radium has been on the balance scale and subject to your estimation for some ten years. We now have positive assurance that it will in a few cases serve to cure cancer. We firmly believe that radium has few limitations, when it is advocated for its palliative influence for the hopeless victim. Furthermore, it is a remedy that you are to be called upon more and more to advise in your daily practice. Therefore it is a pleasure for me to urge you to call upon the staff of the Radium Institute for any possible information relative to the possible advantages of its use. You will never be disappointed in the conservative and trustworthy data given, because it is our purpose to advocate radium therapy only when no other therapeutic agent can serve as well.

Associated Physicians of Long Island

THE Sixty-ninth Regular Meeting of the Associated Physicians of Long Island was held at the Hotel Sagamore, Oyster Bay, N. Y., Saturday, June 18th, 1921, and was attended by ninety-two guests and members. There could have been no more beautiful setting for such a meeting and the weather could not have been improved upon. The President, Doctor Harris A. Houghton, called the afternoon session to order at three o'clock and introduced Colonel Theodore Roosevelt, Assistant Secretary of the Navy, who delivered a very interesting address, using as his subject, "The Navy." At the close of the address Doctor Luther Taylor Jackman proposed that Colonel Roosevelt be elected an Honorary Member of the Society and this motion, being seconded, was unanimously passed. At the close of the afternoon session the members visited ex-President Roosevelt's grave.

Dinner was served at six and, notwithstanding the fact that the service was so slow as to cause general dissatisfaction, in this particular, seemed to meet with general approval in all other particulars. At the dinner the Reverend Doctor Newell Dwight Hillis, Pastor of Plymouth Church, Brooklyn, N. Y., addressed the members concerning Americanism and Socialism. His address met with marked approval. At the close of the address Doctor Albert Harrison Brundage proposed that Doctor Hillis be made an Honorary Member and this motion, being duly seconded, was unanimously carried. Both Colonel Roosevelt and Doctor Hillis were voted thanks. A quorum was present at both sessions.

The membership Committee presented the following names of applicants for membership in the Society and the names were ordered, by the vote of the Society, added to the roster:

Proposed by Dr. Martin M. Kittell:

Dr. Walter C. A. Steffen, 352 First Avenue, College Point, N. Y., College of Physicians and Surgeons, New York, N. Y., 1913.

Dr. Augustus S. Lowsley, 214 Madison Avenue, Flushing, N. Y., Medical College of Virginia, Richmond, Va., 1917.

Dr. Daniel Schultheis, 615 Sanford Avenue, Flushing, N. Y., Cornell Medical College, New York, N. Y., 1917.

Dr. Allen G. Fechtig, 21817 Langdon Street, Queens, N. Y., Johns Hopkins Medical School, Baltimore, Md., 1914.

Proposed by Dr. Edward V. Kennedy:

Dr. William J. Flanagan, 4676 Beaufort Avenue, Richmond Hill, N. Y., Fordham University Medical College, 1918.

Dr. Joseph A. Novelli, 1011 Halsey Street, Brooklyn, N. Y., Fordham University Medical College, 1918.

Dr. J. Louis Simpson, 97 Park Avenue, Brooklyn, N. Y., Fordham University Medical College, 1918.

Proposed by Dr. Philip J. Genthner:

Dr. George Hector Lordi, 26 First Place, Brooklyn, N. Y., Long Island College Hospital, Brooklyn, N. Y., 1919.

Dr. Joseph Gerard Terrence, 80 Rugby Road, Brooklyn, N. Y., Long Island College Hospital, 1920.

Proposed by Dr. Nathaniel P. Rathbun:

Dr. Gray Phillips, 67 Hanson Place, Brooklyn, N. Y., Long Island College Hospital, 1912.

Proposed by Doctor Luther Taylor Jackman:

Dr. Albert Charles Geyser, Huntington, N. Y., Bellevue Medical College, New York, N. Y., 1896.

Dr. W. P. Kortright, Huntington, N. Y., Cornell Medical College, 1917.

Dr. John F. Donogue, Oyster Bay, N. Y., Buffalo Medical College, Buffalo, N. Y., 1914.

Dr. Edward J. Cringle, Huntington, N. Y., Fordham University Medical College, New York, N. Y., 1917.

Proposed by Dr. John H. Ohly:

Dr. M. Malcolm Knoller, 244 Schermerhorn Street, Brooklyn, N. Y., Long Island College Hospital, Brooklyn, N. Y., 1909.

Proposed by Dr. John F. Ranken:

- Dr. Paris Vance Corey, 186 Quincy Street, Brooklyn, N. Y., Hahnemann, Chicago, Ill., 1904.
- Dr. William E. Ball, 564 Decatur Street, Brooklyn, N. Y., New York Homeopathic, New York, N. Y., 1916.
- Dr. James Raymond Boyd, 891 Sterling Place, Brooklyn, N. Y., New York Homeopathic, 1917.
- Dr. Frank T. Chaplain, 776 East Eighteenth Street, Brooklyn, N. Y., Hahnemann Medical College, Philadelphia, 1882.
- Dr. J. A. W. Hetrick, 717 Eastern Parkway, Brooklyn, N. Y., New York Homeopathic, New York, N. Y., 1918.

Proposed by Dr. James Cole Hancock:

- Dr. George Wesley Beatty, 204 Hancock Street, Brooklyn, N. Y., Long Island College Hospital, Brooklyn, N. Y. 1898.
- Dr. Salvator R. Scorza, 253 Radda Street, Long Island City, N. Y., Fordham University Medical College, New York, N. Y., 1917.
- Dr. Robert Grover Ward, 2957 West Twenty-eighth Street, Brooklyn, N. Y., Long Island College Hospital, Brooklyn, N. Y., 1912.
- Dr. Robert W. Pettit, Patchogue, N. Y., College Physicians and Surgeons, New York, N. Y., 1905.
- Dr. George F. Herrity, 607 Park Place, Brooklyn, N. Y., Yale University Medical College, New Haven, Conn., 1907. Address is 601.
- Dr. Carroll Chase, 1170 Dean Street, Brooklyn, N. Y., Long Island College Hospital, Brooklyn, N. Y., 1899.
- Dr. Joseph J. Patiky, Huntington Station, N. Y., University and Bellevue Medical College, New York, N. Y., 1916.
- Dr. Sanford O. Shumway, 422 Lafayette Avenue, Brooklyn, N. Y., Long Island College Hospital, Brooklyn, N. Y., 1911.
- Dr. Charles A. Kinch, Central Islip, N. Y., College Physicians and Surgeons, New York, N. Y., 1873.
- Dr. Arthur Wildman, 379 Second Street, Brooklyn, N. Y., Fordham University Medical College, New York, N. Y., 1912.
- Dr. Emil Goetsch, 2 Sidney Place, Brooklyn, N. Y., Johns Hopkins Medical College, Baltimore, Md., 1909.
- Dr. Henry Chandler Mahnken, 400 Hancock Street, Brooklyn, N. Y., Long Island College Hospital, Brooklyn, N. Y., 1917.
- Dr. John Jérôme Anderson, 454a Greene Avenue, Brooklyn, N. Y., Long Island College Hospital, 1911.
- Dr. Alexander Hitlin, 685 Willoughby Avenue, Brooklyn, N. Y., College Physicians and Surgeons, New York, N. Y., 1905.

JAMES COLE HANCOCK,
Secretary.



EDITORIAL



Medicinal Beer

THE recommendation of a committee of the Congress of the United States on the subject of beer and wine in relation to the Volstead Act brings up a side of the question that is distinctly illuminating. When Mr. Palmer, the former Federal Attorney General, ruled that beer might be prescribed medicinally he at once brought up a question that had previously not been seriously considered by the profession at large. For many generations there has been a popular belief that porter, stout, and other heavy beers have had certain tonic properties, and they have been especially recommended for nursing mothers. Whether the general profession has ever accepted this belief, or whether it has merely acquiesced in the use of these beverages is not clear. It is certain, however, that they have not been recognized by the U. S. pharmacopia as of medicinal value. That bitter beer is appetizing is generally conceded, and that there is a definite diastatic value to malt has been generally believed. It is interesting to note that in the past certain large brewing interests have held out the promise of a profitable advertising contract to some medical magazines with the proviso that those magazines should both editorially and by so-called scientific papers urge the advantage of beer as a valuable medicinal agent. The assumption is that only the minority of physicians have ever regarded beer as a distinct medicinal agent—a point of view that is emphasized by the fact that only 22% of physicians have ever taken out a license to prescribe alcohol, and a comparatively small number of these use their privilege. The actual effect of the Attorney General's ruling was to throw upon the medical profession the whole onus of making an evasion of the law possible. The result, as pointed out by a counsel of the Anheuser-Busch Brewing Company in his argument on behalf of the Company against the brewing of real beer, was to bolster up the illicit production of inferior beer by a few of the less reliable brewers, thus bringing about a situation that was extremely unfair to some of the larger firms that have voluntarily abandoned brewing in order to produce beer substitutes. It is manifestly unfair that prohibition should be applied to some and not to all. It is manifestly unfair that the very few unethical physicians who have abused their liquor privilege in the past should be in a position to bring discredit on the whole profession. It is therefore, better to cut out the whole responsibility, refuse any permits to brew, and cut down distilling so that the manufacturers of some proprietary alcohol-containing mixtures shall also be forced out of business. It is notorious that certain so-called tonics which have always been regarded by legitimate practitioners as depending almost entirely on their alcohol content for their effectiveness, have been pushing their products so that their sale for their beverage qualities has in-

creased enormously since prohibition went into effect. If legitimate brewers and distillers must bow to the law these men must be compelled to observe it also. We name no names, but every physician can recall without effort half a dozen preparations of this sort that might far better be done away with.

What has been said of beer may be applied with very slight modification to wines as well. It is far better for physicians to acquiesce in the very inconsiderable inconvenience from their inability to utilize these preparations, than for them to discredit an honorable profession by making it possible for evasions of the law to be accomplished through their agency.

H. G. W.

Sheppard-Towner Bill

THE favorable attitude of the Congress toward the Sheppard-Towner Bill, which in brief appropriates \$1,480,000 to be apportioned among those states that institute maternity welfare legislation, emphasizes the need for a more practical method of dealing with matters which come before the Federal Congress than is now in vogue. This type of legislation, while superficially laudable inasmuch as it proposes to raise the standard of American motherhood, and to provide a better chance for American babies, is in itself vicious for several reasons. In the first place the handling of this problem is not placed where it logically should be, in the hands of the public health authorities, but is made a part of the Department of Labor, possibly because of the belief on the part of Congress that labor in women is the same thing as labor among men. Again, it appropriates a large sum of money for purposes that have not been sufficiently defined at a time when the country is staggering under an enormous burden of debt, and when social unrest is evident on every hand. And third, it constitutes a type of socialistic legislation of unproven value that opens a crack through which much more distinctly vicious legislation may find its way all too easily to a place on the statute books. In New York State, through the determined efforts of the medical profession ably backed by the dentists and druggists, assaults upon the public health laws by similar influences have been successfully met and vanquished during the past year. It is very evident that a national guild is necessary to supplement the work of the American Medical Association, for political methods can only be combated by politics. The effect of public hearings on any legislation bears the same relation to the practical working of the legislation that the meringue does to lemon pie. It is put on after everything else is finished, and has a pleasing effect for the public eye.

H. G. W.

Is the Virulence of Tuberculosis Lessening?*

IN THE United States, at least in twenty-four from which registration figures are available, there has been a steady fall in the death rate from tuberculosis for a number of years. The death rate as

* Public Health Reports, May 27, 1921. The Course of Pulmonary Tuberculosis Mortality since 1914.

given in Public Health Reports for each hundred thousand persons was 123 in 1914 and 1915; 121 in 1916; 125 in 1917; 130 in 1918; 109 in 1919. By comparison the figures of the Statistical Bureau of the Metropolitan Life Insurance Company for the corresponding years are 185, 180, 173, 172, 171, 142, and in 1920, 122. In England and Wales a somewhat similar course is observed, although the exigencies of the great war coming as they did three years before our own entry, naturally drove the figures upward. In 1914 there were 105 deaths per hundred thousand, and including 1919 the figures read—105, 116, 118, 125, 134 and 102. In other words there was a downward tendency in the death rate until the war, then an upward tendency, and then after the war a decided drop. If one compares this with the figures which have been kept in the state of Massachusetts since 1860, it is notable that there has been a steady and almost consistent decline from 400 per hundred thousand in 1860 to just over 100 in 1916, with the rise that one would expect in the year of the war, 1917. Not only did war conditions exist in 1917 and 1918, but the world-wide prevalence of influenza was a factor hardly secondary in its importance. We have been accustomed to point to the favorable results obtained in recent years in the treatment of the tuberculous, and the claim has been made that these favorable results depend upon the earlier recognition, greater alertness on the part of the medical profession, more intelligent co-operation on the part of the general public, increase in the number and character of institutions for the care of the tuberculous, and a better grasp of the details of treatment. Viewed in the light of the experience of the state of Massachusetts and other districts in which reliable figures covering prolonged periods are available, is it not fair to deduce an attenuation of the disease which should be added to these other factors? For instance, in Massachusetts between 1860 and 1880 there was an irregular fall in the mortality rate of from 400 to 300 per hundred thousand. We must agree that treatment conditions as we now know them would hardly affect that period. From 1880 until 1890 there was a further almost steady fall from 300 to 250; and from 1890 to 1900 a practical uniform decline to 150. The increased uniformity of the fall from 1890 on may be taken to represent the period when definitely improved treatment can be considered as a positive factor. But the previous period shows an almost constant average, although the variations by years is much greater—that is, some years have increased so that the curve during that period is a broken one as compared with an even line during the later time. Naturally these figures must be interpreted cautiously, but the temptation is very strong to reason that, all things considered, the virulence of the disease shows a positive decline. It will be extremely interesting to see what observations may be deduced in further support of this suggestion.

H. G. W.

Movies and Morals

GOVERNOR Miller signed the Clayton-Lusk Bill on May 13th, thus providing for legal censorship of moving picture films in New York state. The wisdom of this legislation has been more than usually discussed. While it has been pretty generally agreed that

the type of pictures shown has steadily deteriorated until popular indignation has been aroused, it has been a matter that has not yet been decided, whether legal censorship is the better way to control the situation. Those who doubt the wisdom of this measure do so because of the difficulty of finding broad-minded men and women as censors. They fear that politics will play a part in determining both the choice of censors and the choice of films. Moving picture managers lay the blame almost without exception on the public itself, stating that the public has been given what it has demanded. Be that as it may, the business has been far too profitable to induce managers to be careful in their selection, and it is greatly to be feared that their judgment of what the public demands is based, not upon the artistic merit of the production, but upon how much sex slobber can be introduced without turning the public stomach. One has only to observe the way in which certain noble works of fiction have been mutilated in this manner to realize the truth of this statement.

There is another aspect, however, of this question of movies and morals. One has but to observe the entrance of almost any moving picture theatre at the beginning of the afternoon performance to be impressed with the large number of young men waiting for admittance. Where do these men get the leisure and the money to spend so much daylight in such places? Are they drawn thither because they are idle, or do they keep themselves in idleness in order that they may indulge some vicious tendencies in the gloom of the auditorium? Y. M. C. A. officials have declared that the movie habit is one of their strongest obstacles in the way of inducing youths and young men to take up wholesome occupations. The whole matter comes up for discussion because of the very definite increase of certain unprintable moral crimes among boys and young men that have of late been attracting the serious consideration of educators. It is notorious that every war tends to stir up a period of moral laxness, but the situation as outlined above goes back before the war period, and is apparently in no small measure dependent upon the cheap, emotional stimulation that the movies have provided for those parents who are too selfish to provide home amusement for their children, and for those children who cannot find in their homes the normal pleasures as well as the normal restraint which is producing a generation of children who promise to grow up into ill-mannered and immoral men and women.

H. G. W.

MEDICAL BOOK NEWS

Edited by JAMES M. WINFIELD, M. D.

All communications, books for review, etc., should be addressed to the Editor of this Department, 1313 Bedford Ave., Brooklyn, New York

July, 1921

3 Pages

ANATOMY OF THE NERVOUS SYSTEM.

THE ANATOMY OF THE NERVOUS SYSTEM FROM THE STANDPOINT OF DEVELOPMENT AND FUNCTION. By Stephen Walter Ranson, M. D., Ph. D., Philadelphia and London. W. B. Saunders Company, 1920. 395 pages, 260 illustrations. 8vo. Cloth, \$6.50.

Perhaps in no department of medical teaching has the advance of the last ten years been more marked than in the teaching of anatomic neurology. Dr. Ranson in this book has kept step with that advance.

Although written with the needs of the medical student constantly in mind the subject has been approached from the angle of the developmental and functional significance of structure and the text is so clear and so generously illustrated with dissections, cross sections and diagrams of conduction pathways that the tired general practitioner will not find the reading hard nor the subject so impossible of understanding as he had formerly thought. To the neurologist this work will provide means for a rapid review in a subject in which he is getting a trifle rusty perhaps, and should he differ from the author in any respect he will find numerous references in the text and an adequate bibliography to sustain the author's opinion.

An outline for a laboratory course in neuro-anatomy has been included; the index is satisfactory.

KEEN'S SURGERY, VOLUME 8.

SURGERY, ITS PRINCIPLES AND PRACTICE. By Various Authors, Edited by William Williams Keen, M. D., LL. D. Volume 8. 960 pages, with 657 illustrations. Complete index to Vols. 1 to 8. 182 pages. Phila. & London, W. B. Saunders Company, 1921. 8vo. Price: Vols. 7 and 8 and Desk Index, Cloth, \$25.00 net per set.

With the publication of this volume the venerable editor bids farewell to his staff of contributors who have so successfully cooperated with him in producing his great work on the practice of surgery.

The book picks up the odds and ends of

surgery which have come to notice since the publication of Volume VI and, in a somewhat fragmentary manner at times, discusses the new points and correlates them with the matter contained in the original five volumes. Each of the forty-one chapters contains something of interest and everyone who possesses the older volumes will want this one in order to make the whole complete and up-to-date.

Some of the phases of war surgery that are discussed can well be taken to heart by the civil surgeon, the chapters on genito-urinary surgery are valuable and the uses of radium and the x-ray are well presented.

The Index to Entire Eight Volumes is bound separately and adds greatly to the ease with which the work may be consulted. It is commended to the notice of publishers of all works which are made up of a number of volumes.

T. B. S.

PRINCIPLES OF BIOCHEMISTRY.

PRINCIPLES OF BIOCHEMISTRY FOR STUDENTS OF MEDICINE, AGRICULTURE AND RELATED SCIENCES. By T. Brailsford Robertson, Ph. D., D. Sc. Philadelphia and New York, Lea & Febiger, 1920. 633 pages, illustrated. 8vo. Cloth, \$8.00.

This is one of the most commendable texts that has ever been written on biological chemistry. The author considers the subject matter of biochemistry to be "the application of the known principles of chemistry and physical chemistry to the study and interpretation of life phenomena; of the processes, that is of digestion, assimilation, respiration, growth, reproduction, muscular contraction and the like, which combine to distinguish living from inanimate matter." In presenting the subject of biochemistry from this standpoint it is evident that the text was intended primarily for the use of medical students and students intending to specialize in biochemistry and physiology. But the subject is so broadly treated that it covers the needs of the general biologist, the student of agriculture, and the industrial chemist whose work involves a knowledge of the subject. At times the author is perhaps too

brief for the needs of certain individuals, but this difficulty is largely overcome by the many references which appear at the end of each chapter. Throughout the entire book the author has made use of his vast store of knowledge of the allied subjects of biology, physiology, physics, physical chemistry, bacteriology and mathematics. To read this book is to broaden one's outlook on every phase of biological science. To physicians it is especially recommended, for, it is in the practice of medicine that the advances and applications of biochemistry affect human welfare most directly and profoundly. In fact, a careful perusal of this text will convince one that biochemistry is fast making medicine an exact science.

NUCLEIC ACIDS.

NUCLEIC ACIDS; THEIR CHEMICAL PROPERTIES AND PHYSIOLOGICAL CONDUCT. By Walter Jones, Ph. D. Second Edition. London and New York, Longmans, Green & Co., 1920. 150 pages. 8vo. \$3.25 (Monographs on Biochemistry).

The second edition of this invaluable monograph fully meets the expectations of those of us who have constantly used the first edition (issued in 1914). It is still the only treatise which deals exclusively with this subject. The author treats comprehensively nuclein, nucleoprotein, nucleic acid; thymus nucleic acid; yeast nucleic acid; the metabolism of nucleic acid, pyrimidins and purins; nuclease and purinases; and purin derivatives in human urine. In an appendix he gives detailed methods for the preparation of many of the compounds discussed in the text.

Many of the hypothetical compounds that were mentioned in the first edition have been prepared, for instance, the four hypothetical nucleotides have now been prepared from plant nucleic acid, a fact which must be very gratifying to the author.

"A most important development has also occurred on the physiological side. After it was shown that the purine fermentation is markedly different for different animal species and that the purine ferments have a successive embryonic development, efforts were of course directed to the discovery of evolutionary relations. After thorough examination it became certain that the organism of the monkey contrasted sharply with that of man and resembled that of the lower animals. This was a little unexpected, as the organs of the rabbit and the guinea pig had been found to coincide throughout. However, the conclusion was accepted without hesitation; in fact every one was rather pleased, and even took the trouble to emphasize this notable difference between man and monkey. But a subsequent examination of apes put the evolutionary matter in a somewhat different light. In regard to the most striking factor of purine metabolism (ability to convert uric acid into the more soluble allantoin) the lower animals closely re-

semble one another. Their "uricolytic index" is high. But the uricolytic index in man and the *ape* is zero; they cannot convert uric acid into allantoin. Therefore the gap occurs between the *ape* and the monkey, not between the *ape* and man, which constitute a class by themselves."

PRACTICAL COURSE IN PHYSIOLOGICAL CHEMISTRY.

DIRECTIONS FOR A PRACTICAL COURSE IN CHEMICAL PHYSIOLOGY. By W. Cramer, Ph. D., D. Sc., M. R. C. S. Fourth Edition. London and New York, Longmans, Green & Co., 1920. 137 pages. 12 mo. \$1.50.

The fact that four editions of this text have appeared in eight years bespeaks the approval given to it by teachers of Physiological Chemistry. It is a laboratory manual of experiments in chemical physiology pure and simple. The author does not discuss his experiments except in a very few instances. The experiments are well chosen and are written in clear and concise language. The main topics covered in the text are as follows: The analysis of animal and vegetable tissues and fluids; the chemistry of digestion; the chemistry of normal metabolism; and the chemistry of pathological metabolism. Many new tests have been added in accord with the growth of the subject during the past few years.

STEWART'S MANUAL OF SURGERY.

A MANUAL OF SURGERY FOR STUDENTS AND PHYSICIANS. By Francis T. Stewart, M. D. Fifth Edition. Philadelphia, P. Blakiston's Son & Co., 1921. 1086 pages with 590 illustrations. 8vo. Cloth. \$10.00.

Any text book that reaches its fifth edition is well established in the medical profession and needs very little analysis from the reviewer. The manuscript was practically completed at the time of Doctor Stewart's death. The work was finished by one of his associates.

The book was prepared for the undergraduate and the busy practitioner. Historical matter and bibliographical history are omitted. The text is up to date, clear, and essential facts are readily obtained.

HARRY R. TARBOX.

PRINCIPLES OF IMMUNOLOGY.

THE PRINCIPLES OF IMMUNOLOGY. By Howard T. Karsner, M. D. and Enrique E. Ecker, Ph. D. Philadelphia and London, J. B. Lippincott Company, 1921. 309 pages, illustrated. 8vo. Cloth. \$5.00.

This book should be of value to physicians who desire to acquaint themselves with the principles of immunity but have neither the time nor the inclination to study the larger

works on the subject. The principles of this important branch of medicine are clearly stated and discussed in a readable manner. There is a minimum of reference to the literature or exposition of conflicting theories which so often bewilder and discourage the average seeker after knowledge in this field. After a discussion of general principles, the authors give a lucid account of the phenomena of toxin and antitoxin formation, agglutinins-precipitins, cytolytins, complement fixation, hypersusceptibility and defensive ferments. A small amount of experimental data is included and serves to elucidate the text. In an appendix is found a discussion of the therapeutic use of blood serum, prophylactic vaccination and vaccine therapy.

E. B. SMITH.

TECHNIQUE OF PSYCHOANALYSIS.

THE TECHNIQUE OF PSYCHOANALYSIS. By Smith Ely Jelliffe, M. D., Ph. D., Second Edition, revised and enlarged. New York & Wash., Nervous and Mental Disease Publishing Co., 1920. 171 pages, 8vo. Paper, \$2.50. (Nervous & Mental Disease Monograph Series No. 26).

This monograph will be read with a great deal of profit by those who have already acquired a knowledge of the theory of psychoanalysis. And even though Jelliffe's style is always interesting and convincing, without a preliminary training in psychopathology, the casual reader of this book is apt to find himself in deep water at times.

His chapter on what type of patients should not be analyzed is admirable. If some amateur analysts would only learn this chapter by heart, they would not attempt to probe into the unconscious of those patients who not only will not be helped by analysis, but may be harmed by it. Such pseudo-analysts only bring discredit to a valuable scientific method. The situation is similar to an amateur surgeon, without training, attempting a difficult surgical operation.

His description of the Oedipus hypothesis as a psychological measuring unit is one of the best brief descriptions that we have on this subject.

The book is highly recommended to those whose previous study will permit them to appreciate its contents.

J. F. W. MEAGHER.

PRINCIPLES OF HYGIENE.

PRINCIPLES OF HYGIENE. A Practical Manual for Students, Physicians and Health Officers. By D. H. Bergey, A. M., M. D., Dr. P. H. Seventh Edition, thoroughly revised. Phila. & London, W. B. Saunders Company, 1921. 556 pages, illustrated. 8vo. Cloth, \$5.50.

A work which has already run through six editions needs nothing more said for it. The author calls it "a practical manual for students,

physicians and health officers" and it is exactly that. The text matter is good, the style clear and concise, and the index admirable. Particularly to be commended are those chapters which deal with general phases of hygiene and sanitation; those considering the particular phases of the subject, such as personal hygiene, industrial hygiene and others are quite brief and of little value except as guides to collateral reading.

E. H. M.

A PRIMER FOR DIABETIC PATIENTS

A PRIMER FOR DIABETIC PATIENTS. A Brief Outline of the Principles of Diabetic Treatment, Sample Menus, Recipes and Food Tables. By Russell M. Wilder, Ph. D., M. D., Mary A. Foley and Daisy Ellithorpe. Phila. & London, W. B. Saunders Company, 1921. 12mo. Cloth, \$1.50.

This is a very useful little book to place in the hands of Diabetic patients, as it helps to educate them in Diabetes and to scientifically watch their condition by a simple daily urine examination, supervised now and then by the physician.

The diet lists are of great help both to the physician and patient, since this little volume definitely indicates the amount and kinds of foods which the patient is to take daily and leaves no room for guess work of the patient and particularly for friendly and unsolicited, but foolish, advice of neighbors.

This volume will be of great help in the treatment of Diabetics.

BOOKS RECEIVED.

Books received for review are acknowledged promptly in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases review notices will be promptly published shortly after acknowledgment of receipt has been made in this column.

MEDICAL ELECTRICITY, ROENTGEN RAYS AND RADIUM, with a Practical Chapter on Phototherapy. By Sinclair Tousey, A. M., M. D. Third Edition, thoroughly revised and greatly enlarged. Phila. & London, W. B. Saunders Company, 1921. 1337 pages, 861 illustrations. 8 vo. Cloth, \$10.00.

A TEXT-BOOK OF PATHOLOGY. By Alfred Stengel, M. D., Sc. D. and Herbert Fox, M. D. Seventh Edition, reset. Phila. & London, W. B. Saunders Company, 1921. 1111 pages, 509 illustrations. 8vo. Cloth, \$8.50.

OPERATIVE SURGERY. By John J. McGrath, M. D., F. A. C. S. Sixth revised edition. Philadelphia, F. A. Davis Company, 1921. 863 pages with 369 illustrations. 8vo. Cloth, \$8.00.

TREATISE ON FRACTURES IN GENERAL, INDUSTRIAL AND MILITARY PRACTICE. By John B. Roberts, A. M., M. D., F. A. C. S. and James A. Kelly, A. M., M. D. Second Edition, revised and entirely reset. Phila. & London, J. B. Lippincott Co., 1921. 755 pages, 1081 illustrations. 8vo.

FOUNDATIONS OF PSYCHIATRY. By William A. White, M. D. New York & Wash., Nervous & Mental Disease Publishing Co., 1921. 136 pages. Paper, \$3.00. (Nervous & Mental Disease Monograph Series, No. 32).

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Analysis of Operatively Demonstrated Lesions of the Gall Bladder and Bile Ducts from the Standpoint of Early Diagnosis*

ROYALE H. FOWLER, M. D., F. A. C. S.

Brooklyn, New York.

THE desideratum in diseases of the gall-bladder and bile ducts is early detection before complications arise which either forbid surgery or render the operative risk greater. Surgeons are not privileged to see lesions of the biliary tract in the prodromal stage as frequently as they should. I refer to the stage of gastric symptoms.

There are two reasons why surgeons may not see incipient gall bladder lesions. The first is because of disregard on the part of the patient of the importance of the functional disturbance of the stomach and the consequent failure to consult the physician on account of the insidious, mild and intermittent character of the complaint, the second is the failure of the physician to recognize this type of surgical dyspepsia and its potentialities.

There is now no doubt that the near and remote results of disease of the biliary tract should be classed as sequels of hematogenous or lymphogenous infection. It is the initial infection of the gall bladder in which we are most interested. Can we accept Rosenow's statement that certain bacteria possess an elective affinity for certain structures and are carried from distant foci of infection embolically? We think that we can and are now inclined to accept this view excluding older theories of infection by portal-borne organisms and ascending infection by way of the ducts from the duodenum.

Infections believed to be sometimes responsible are puerperal fever, influenza, appendicitis, colon infections, tonsillitis, paranasal sinusitis, chronic orol sepsis, infectious arthritis, chronic ulcerative enteritis, and post-operative pyogenic infections.

Biliary stasis is no doubt a contributing factor in the etiology of cholecystitis as well as disturbed cholesterolin metabolism said to be controlled by the adrenal.

* From the Department of Surgery, The Greenpoint Hospital.

Rous and McMaster of the Rockefeller Institute have pointed out that under conditions of stasis the gall bladder continues to exercise its usual function of concentrating the bile and incidentally adding mucus to it. This is quite different from the behavior of the bile ducts. Consequently, when an obstruction is produced below the entrance of the cystic duct, all of the extralobular biliary channels come at length to be filled with a thick, greenish black fluid. On the other hand, since the mucosa of the ducts themselves secretes little, if any, mucus and they do not facilitate concentration of their contents by absorption of water, in an obstructed duct system blocked off from the gall bladder, or connecting with one so changed as to be incapable of functioning, there regularly accumulates a limpid, watery fluid devoid of pigment and bile even when the animal is heavily jaundiced. This is "white bile." The passages soon become so distended with it that true bile ceases to enter them. Although it has been maintained that stagnation and inspissation of the bile do not give rise to the increased formation of cholesterol or to the precipitation of insoluble compounds of the bile pigments, concentration is at least a concomitant and probably a contributory factor in the production of gall-stones. As Rous and McMaster point out, even in uninfected and uninflamed bile passages an abnormal concentration and thickening of the bile, such as the gall bladder can effect, must act both to promote the formation of stones and to render obstruction by them more complete. The frequent rapid increase in size of stones partially obstructing the common duct is attributable to the concentration of stasis bile by the gall bladder.

Peterman, Priest and Graham more recently submit evidence of the infection of the gall bladder from the liver passing by way of the intimate lymphatic connections existing between the two organs and vice versa producing a vicious circle. Inflammatory changes in the liver have been constantly produced by experimental cholecystitis in dogs. These liver changes are identical with findings by Graham (1918) in the human liver associated with biliary tract infections, i. e., pericholangitis with marked leucocytic infiltration of the interlobular sheaths. The same organism can be isolated from the liver and the gall bladder. Infections of the gall bladder apparently by way of the lymphatics are also easily produced experimentally.

The early diagnosis of diseases of the gall bladder is a most desirable object to attain because they are progressive lesions, early surgical treatment by cholecystectomy results in a permanent cure and because the mortality is thereby reduced to a minimum.

The key note is a carefully elicited early history. It has been taught that this disease is a condition of declining years. As a matter of fact it begins early in adult life. A careful consideration of the duration of symptoms in operative cases shows that the average age when these patients were known to have gall bladder infections was 34 years.

The prodromal symptoms of gall bladder lesions and early stone formation are referred not to the gall bladder but to the stomach. They are not obscure when viewed in this light. About 80% cases show gastric symptoms at irregular intervals for from five to fifteen years, before the classic picture emphasized in the older text books has developed.

Moynihan credits Molloy with grouping of inaugural symptoms in the phrase, "gall bladder dyspepsia." Of the surgical dyspepsias caused by lesions of the upper abdomen, gall bladder dyspepsia is the

most frequent. Physicians have too often waited for the late classic picture, based upon the post-mortem pathology of late complications. It is a phase of the symptomatology improbable of failure of recognition, namely the passage of stones from the gall bladder into the ducts, their lodgment therein, the development of jaundice, a tender tumor of the gall bladder region, infection outside the biliary apparatus and the occurrence of crippling adhesions.

A knowledge of the sequences of changes in gall bladder infections is essential to correct interpretation of the inaugural picture. These are as varied and progressive as in appendicitis. Is it always possible to foretell this sequence before operation or to determine that one variety of infection will eventuate in gall stones, another in shrunken gall bladder or pericystic adhesions? In the light of our present knowledge we do not believe that it is. The lesions are but degrees in a process of reaction to irritants, not definite entities but represent a sliding scale of infective changes due to varied virulence and type of the organisms and to a variable resistance on the part of the gall bladder itself. We would like to distinguish clinically and pathologically the features and nature of a calculus cholecystitis from a non-stone forming catarrh of the gall bladder but evidence is not yet at hand. In a brief paper of limited scope these changes can be but sketchily portrayed. They must be intelligently correlated. The life history of a gall stone from the original infection must be traced in so far as it is possible.

(1) Infection through the blood vessels, lymphatics. Insidious history. Location of primary focus.

(A) Infection of gall bladder wall or

(B) Infection of gall bladder contents. Infection of gall bladder contents may be present at any stage but unless virulent and accompanied by obstruction partial or complete of the cystic or common duct, it will probably not cause symptoms. Nature by internal drainage is kind in relieving the condition mechanically when conditions permit. Hepatic and gall bladder distress or pain increases in direct ratio to the degree of obstruction. When drainage is re-established by subsidence of inflammation and displacement of the stone focal symptoms moderate. The passage of the gall bladder contents, bile, mucus (not stone) through the common duct may be attended with moderate pain in the region of the right iliac fossa; hence the diagnosis of appendicitis may be entertained.

(2) Catarrh

(A) Stone-forming

(B) Non-Calculous

(3) Progressive changes may eventuate in:

(a) Gangrene, Perforation, or

(b) Hydrops, Empyema or

(c) Adhesions, Pericystic or

(d) Stone—Carcinoma

(A) Primary focus, Quiescent history of dyspepsia, No present symptoms may be elicited.

(b) Acute obstruction of cystic duct. Epigastric pain and cramp.

(c) Prolonged obstruction of cystic duct. Epigastric pain and cramp plus pain and soreness over gall bladder region of liver running round through to the back.

(d) More protracted obstruction of the cystic duct, greater distention of the gall bladder. Referred pain at the angle of the scapula.

(e) Permanent obstruction of the cystic duct. Hydrops or empyema develop depending upon infection of contents of gall bladder. Distress, soreness and pain over gall bladder region and liver persist or may increase—depending upon degree of distention. Pronounced local signs and symptoms plus symptoms of general infection.

Stones are not formed in any one attack. Repeated mild attacks of inflammation probably result in dyspepsia, while a more severe infection manifests itself clinically as cholecystitis. If we recognize that the initial infection of the gall bladder (a cholecystitis) is an essential factor in the formation of stones, lithiasis may be considered a complication or sequel of cholecystitis, a late stage of the same infection. Pathologically cholelithiasis is constantly associated with cholecystitis.

The sequels of infection are best known to the laity and gall stones is to them the well-known disease of this tract which they recognize to be of surgical importance. If cholecystitis could be emphasized as indication for operation years of invalidism might be spared many patients. It should be our aim to get these cases in this stage and should command united and earnest coöperative effort on the part of the general practitioner and surgeon. Advise operation for cholecystitis and if stones are present consider them velvet.

Entirely too much stress has been laid upon gall stones. It is the infection in which we are interested. The infection may manifest itself as dyspepsia or more decided symptoms of cholecystitis.

The symptoms of these infections may be divided into two main groups. (1) Those in which there is a more or less protracted history of symptoms referable to the stomach. (Gall bladder Dyspepsia). (2) Those in which the above are present for a shorter period but with added more definite symptoms referable to the gall bladder. These mild gastric symptoms consist of, distress and bloating, a sensation of upward pressure usually after meals but also at irregular intervals, sometimes relieved by belching or regurgitation of sour material or slight vomiting. These attacks of flatulent indigestion are characteristic though mild and irregular. Some patients state they have to be careful what they eat, though the appetite is good. It may be voracious. In a somewhat more advanced stage of early gall tract infection these patients complain of mild or severe pain in the epigastrium. It is usually dull and may be prolonged for several days when a free interval may occur.

Following these symptoms, a more or less pointed pain referable to the gall bladder usually occur. There is prolonged mild or severe pain beneath the right costal margin. This may be diffused over the entire liver area and be sore to the touch.

Pain may be referred rather indefinitely to the back or side. It is usually increased by deep breathing, exertion or following a heavy meal. It is frequently mistaken for pleurisy and so mild as to constitute a "stitch in the side." Patients may forget to speak of the stitch in the side, as well as the long history of stomach trouble extending over a period of three to six years. Patients in this stage may be particular in their diet and be more or less free from the so-called typic gall stone colic for years.

Between attacks of stomach disorder and mild pain referred to the back, side and lower ribs, patients may be in comparatively good health. They pass through steady, prolonged irregular attacks of distress alternating with comparative comfort.

The following abstracts from cases classed as Late Sequels of Infection of the gall bladder and ducts illustrate the preceding points.

Case 1, Serial No. 8, (Cholithiasis, Common Duct Obstruction). This case records a thin, delicate, jaundiced woman of 55 who was admitted with typical symptoms of common duct obstruction. She had borne thirteen children, and first presented gastric symptoms of gall bladder dyspepsia at the age of forty-six, nine years before operation. This was diagnosed as gastritis, during which time she was a chronic sufferer from epigastric pain, and typical flatulent gall bladder dyspepsia. This condition apparently continued in an aggravated form for six years before symptoms became localized in the gall bladder region. The symptoms of indigestion may be properly attributed to a mild, sluggish, stone-forming catarrh. It is possible that the stone found in the common duct was originally formed in this location, but sharp, severe pain in the gall bladder region three years ago, followed by a slight attack of jaundice probably resulted from its passage into the duct.

Critical analysis of this case shows, then that a probable diagnosis of gall bladder infection could have been made years before operation, that in the six years interval which followed the onset of gall bladder dyspepsia, before severe, well localized pain in the gall bladder region occurred, there were symptoms referable to this region with which patient and doctor were not duly impressed. The age of the patient 49 years, at that time was sufficient indication for operation, in the face of chronic dyspepsia, of six years duration.

In Case II, Serial No. 7, (Cholelithiasis, Empyema of the gall bladder) we have an advanced sequel of infection in the person of an Italian woman sixty years of age. She is said to have first presented symptoms of gall bladder dyspepsia five years before operation. There were four different attacks of increasing severity of three or four days duration. During this period the history does not record symptoms referable to the gall bladder, but the condition might have been suspected from the gastric symptoms, for these mild intermittent attacks, sudden and irregular, are as characteristic of gall bladder disturbance, as are the so-called typic attacks which as a rule supplant them. Upon discharge from the hospital the notes indicated the wound was healed and she felt perfectly well. Letter of inquiry concerning end result has been returned "unclaimed."

Case III, Serial No. 9, (Cholelithiasis, Perforation of the Gall Bladder, Diffuse Peritonitis). This case illustrates a somewhat different type in a young woman rapid in its course, with frequent repeated, definite, acute attacks of localized pain in the gall bladder region, without the predominating dyspepsia occurring before the initial attack, or the interval between attacks. We observe that infection of the gall bladder was present three years before operation, at the age of thirty-one. This patient had localized pain in the gall bladder in all five attacks. The first attack indicated the presence of cholecystitis, the second attack in September was more severe and of longer duration. Attacks were diagnosed by her physician as acute indigestion. During the three years she presented mild, typical, intermittent symptoms of gall bladder dyspepsia. The severe lancinating pain in the gall bladder region referred to the lower abdomen, in September, was probably coincident with the slow leakage of bile and spreading peritonitis. In the last four months there were four attacks of this nature indicating chronic perforation.

Case IV, Serial No. 3, (Cholelithiasis, 385 Calculi in the gall bladder). This case shows initial infection at the age of 25 years, the youngest in the series. The first attack occurred six weeks after the birth of her first child. The last attack was six months ago following the birth of her second child. A conspicuous feature is the initial pain between the shoulder blades, radiating forward to the lower ribs, hypochondriac and epigastric regions. An explanation may be found in the fact that this was an unusually deep lying gall bladder, though just why this fact should reverse the usual pain is difficult to appreciate. It is noted that, while flatulent dyspepsia was present, it was not very pronounced.

Case V, Serial No. 14, (Chronic Cholecystitis, gall stones, Hydrops of the Gall Bladder). The history indicates sharp, well localized pain in the gall bladder region referred to the back with vomiting, two years before operation. Attacks have recurred about every eight weeks, lasting about eight hours.

The following case well illustrates Nature's attempt to relieve the gall bladder of its burdensome quarry.

Case VI, Serial No. 6, (Chronic Cholecystitis, Cholithiasis, Intramural Stones). Spontaneous attempt at cholecyst-gastrostomy. Mrs. M. Mac., Born in the U. S. A., 24 years of age, housewife, was admitted to the Greenpoint Hospital, December 27, 1915. Discharged January 15th, 1916.

Complained of pain in epigastrium and under the right lower ribs. This pain was first noticed nine months after the birth of a child. The pain was sharp, inconstant and seemed to be growing worse. For the past four months the patient has been vomiting usually after meals, occasionally before meals. She has never been jaundiced. Last menstrual period five months ago.

Upon examination of the abdomen there is a marked tenderness under the right costal margin. Liver dullness extends one finger breadth below costal margin in mid-clavicular line. The right kidney is palable, the left kidney and spleen are not palable.

Pelvic examination reveals a four months pregnant uterus. Temperature $98\frac{1}{5}$, pulse 92. Urine normal. Leucocyte count normal.

At operation the pregnant uterus was recognized, and the gall bladder explored. It was found to contain a number of small stones. It was shrunken and adherent to the stomach, omentum and duodenum. Where it was adherent to the stomach the gall stones had burrowed into that viscus. In separating the adhesions it was necessary to open the stomach. This was later closed with a purse string suture. The gall bladder was removed in the usual manner.

Examination of the excised organ showed a gall bladder which contained many stones. There were many pockets in the wall of the bladder. At one point a stone was completely embedded in the wall.

Post-operative notes—Course uneventful. Wound healed by primary union. About three weeks after returning home patient aborted.

Observation Notes—April 21st, 1917. General condition is excellent. No abdominal symptoms. She feels well and has gained ten pounds in weight. She has again become pregnant, and has miscarried.

October 1st, 1917, patient feels perfectly well.

A resumé of the preceding cases used to illustrate the terminal pathology of the gall bladder and bile ducts shows: (1) The average age of these patients at operation was 42 years, 4 months. (2) The

average duration of symptoms referable to the stomach before operation was 4 years and 10 months. (3) the average duration of symptoms referable to the gall bladder before operation was about 3 years. (4) the average age at which infection of the gall bladder was known to have existed is 30 years 5 months.

These cases may eventuate in carcinoma of the gall bladder if allowed to go untreated. We can not hope for a cure in cancer of cholecystitis. The findings in hopeful cases are usually an accidental discovery made in the course of routine microscopic examination of excised gall bladders. Kehr reports one cure in 49 cases of primary carcinoma of the gall bladder. One is warned, however, against erring in the diagnosis of a swelling in the gall bladder region, combined with jaundice, cachexia, and ascites, even without a history of colic, for these may be evidences of simple gall stone trouble. Do not assume that such a picture is hopelessly malignant and advise against operation for the patient may die of a benign lesion.

What conditions regulate operative procedures when the abdomen is opened? Acceptance of the embolic mode of infective origin of cholecystitis coupled with the knowledge of the progressive changes in the organ have been the main factors in the transformation of our older ideas in urging removal of the gall bladder. The intimate lymphatic connections existing between the liver and the gall bladder speak strongly for cholecystectomy. Removal of the gall bladder averts one phase of a possible cholelithiasis by preventing the accumulation in that viscus of "white bile," that limpid, watery fluid devoid of pigment and bile salts, an accumulated concentration which no doubt is a contributing factor in the pathogenesis of gall stones. It has been the occasional experience of surgeons to operate on cases giving a definite clinical history of cholecystitis and which showed apparently little or even no visible or palpable pathological change. Chronic catarrhal cholecystitis must be regarded in the same light as chronic catarrhal appendicitis and the organ treated in the same way by excision. In this connection Hertzler states "the surrounding peritoneal surfaces are much more apt to retain evidence of passive irritation than is the peritoneum covering the gall bladder itself. In this respect it is entirely analogous to the conditions existing about the appendix. The cholecystoduodenocolic ligament often shows a permanent hyperemia when the gall bladder itself shows none. The peritoneum in the region of the colon and beyond, likewise may show an increased vascularization.

This state of the surrounding peritoneum Herzler believes "is a more accurate criterion for the removal of the gall bladder than is the appearance of that organ itself. Like the appendix, the wall of the gall bladder may recover so completely that no exact evidence of disease can be pointed out, but it is still subject to recrudescence of the inflammation."

The examination of the lymphatic glands draining the gall bladder, bile ducts, and duodenum should not be overlooked. Mayo states, in reference to thin, blue-walled gall bladders without adhesions formerly considered free from disease that cholecystectomy should be performed when symptoms are sufficient for surgical intervention provided these glands are enlarged without other adequate cause. These bladders frequently show a typical "strawberry" mucous membrane. They should be opened and examined. In the presence of an obscure or complex clinical picture resort should be made to opening the duo-

denum or stomach if necessary to demonstrate pathology. External evidence, visual and palpable may be entirely lacking in gastric and duodenal ulcer. The roentgenologist may be insistent in declaring the existence of certain lesions which may give courage to the operator to explore beyond the ordinary bounds.

It has been suggested by Archibald that Pancreatitis developing after cholecystectomy may not be due to the lighting up of a previously existing inflammation in that organ but to a relaxation of the Sphincter of Oddi guarding the orifice of the common duct with consequent regurgitation into the pancreas of bile, which has accumulated in the dilated hepatic and common ducts. To overcome this back pressure Archibald has advocated section of this sphincter. Judd on the other hand believes that dilatation of the bile ducts consequent upon cholecystectomy leads to a paresis of the sphincter, allowing a more or less continuous stream of bile to enter the duodenum, and this prevents entrance of bile into the pancreatic duct. One cannot fail to be impressed by Deaver's teaching that cholecystectomy in slightly infected gall bladders will do much to prevent sequelae involving bile passages and pancreas which occasionally follow cholecystectomy performed for somewhat more advanced lesions as adherent, contracted and functionally useless gall bladders.

The writer, though experience as compared with some others is slight, is inclined to remove the gall bladder in these chronic clinical forms showing slight pathological changes. One must be assured however by careful systematic examination that other lesions (even to the extent of opening the viscus under suspicion) are excluded from incrimination which might explain the train of symptoms. The appendix is removed irrespective of visual or palpable evidence of pathological changes except when the added time element is a decided contradiction.

In view of the smooth convalescence experienced following transduodenal choledochotomy one should not hesitate to perform this operation when occasion justifies it.

Postoperative recurrence of symptoms may be due to: (1) Actual reinfection of the biliary tract and reformation of calculi. (2) Persistence of infection in the biliary tract and exacerbation especially following simple drainage. (3) Occurrence of pathology the result of operation, adhesions to omentum, stomach and duodenum following cholecystectomy and to the anterior abdominal wall following cholecystostomy. (4) Overlooked calculi in the biliary tract, and inaccessible calculi in the intrahepatic ducts. (5) Extension of residual infection outside the biliary tract leading to late lesions, pancreatitis, pancreatic calculi and carcinoma. (6) Failure to deal with coexisting abdominal lesions or mistaken diagnosis.

The possibility of actual reinfection has not been discussed. True reformation of stones may occur, but a skeptical attitude must be adopted until they are found not to have been overlooked at the primary operation. It is conceded, however, that stones may reform especially in the gall bladder or crypts of Luschka, less often in the ducts. The question of intra-hepatic duct calculi is still a fertile field for investigation. Are they actually newly formed or are they overlooked because of their inaccessibility? Persistence of underlying infection, with exacerbation is no doubt the chief cause of the majority of postoperative recurrent symptoms. This infection may persist primarily in the gall bladder, especially in the Crypts of Luschka unless the organ is removed. The primary operation itself may contribute

in part to the failure to secure cure. Crippling adhesions to the anterior abdominal wall may cause disturbed function or pain after simple drainage. After cholecystectomy a new gall bladder may form at the site of the cystic duct, stricture of the main ducts may occur or contraction of the Ampulla of Vater, dilatation of the ducts or biliary fistula may be responsible.

Attention to the following points will help to lessen the number of recurrences.

(1) Probe exploration of the common and hepatic ducts is essential to detect stones in these localities. (2) Palpation alone is not sufficient for in spite of negative palpation, stones may be found in about one-third of cases by proper probe exploration of the common and hepatic ducts. In view of the fact that these common duct stones do not show clinically the symptoms which have heretofore been considered characteristic, a more thorough operation is necessary in the future. Deaver writes he has overlooked common duct stones in five cases of simple drainage and in one after cholecystectomy.

The indications for opening and exploring the bile ducts are:

(1) The presence of many small calculi in the gall bladder (or cystic duct).

(2) A dilated, thickened common duct.

(3) Chills, fever, jaundice.

(4) Recurrence of pain and symptoms of cholangitis following previous operation.

A critical study has resulted in the more frequent adoption of the radical operation of extirpation in preference to drainage of the gall bladder. We now no longer so frequently hear of the controversy "Cholecystectomy vs. Cholecystostomy." All of the eleven recurrent cases (in about 200 gall stones operations) in Deaver's experience at the Lankenau Hospital, Phila. up to 1917 took place after a primary cholecystostomy. Gall stones were found in the gall bladder in two of the cases, and in one case stone was found in the common duct. In another case in addition to stone in the gall bladder, sandy bile was found in the hepatic duct, where it had caused occlusion of the lower part of that duct. This patient had undergone a cholecystostomy four years previously at another hospital and a choledochostomy had been performed by Deaver in 1915. The recurrence of symptoms in the other case was due to adhesions or to dilatation of the common duct. While recurrences sometimes follow removal, they are now less frequent. To summarize they are due for the most part, to (1) overlooked pathology or pathology which may be traced to extension from the original lesion present at the time of operation (chronic pancreatitis, pancreatic lymphangitis, etc.). Disadvantages of cholecystectomy are the increased risk and technical difficulty at times encountered, accidental wounds and ligation of the biliary ducts, fistulae, strictures and adhesions.

We know more of the bad results of other surgeons than we do of our own. Co-operation between surgeons should be encouraged. Every surgeon should report back to the original operator the results he finds when the patient comes for secondary operation.

Gall bladder disease is allowed to continue for years without surgical treatment. In cholecystitis or the pre-gall stone stage there is one treatment—Cholecystectomy, the mortality should not be over 2%. Then there will be no recurrence. In the second stage for stone limited to the gall bladder, there is one treatment, cholecystectomy. The

mortality should also be low and the post-operative morbidity nil. These operations in general are performed on young adults. In the third stage, that of terminal complications, the patients are more advanced in years, there may be cardio-renal-vascular changes which have occurred in the years interval since the onset of the gall bladder infection. The mortality in this stage may be 15%. Here we must consider cholecystectomy whenever possible, drainage operations and anastomosis operations.

• End Results. We may expect to cure more than 70 percent of cases by cholecystectomy. More than 20 percent will be improved. The 10 percent of failures should be investigated further.

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A Thorough Understanding of the Anatomical Structure of the Respiratory System Requisite to the Treatment of Diseases Thereof

GEORGE WESLEY BEATTY, M. D.

Brooklyn, New York.

THE subject of Acute Bronchitis, is so exhaustive that only a few of the major points can be touched on in the limited space of this paper,—therefore, I have tabulated only those I deem of especial interest, without becoming tiresome.

The question of treatment is, after all, one of individual election and as no physician can be an authority for cases other than his own, I shall not enter that field.

Health Department Statistics—Boro Brooklyn for one week in February, show 190 deaths in children under fifteen years of age. Of these 190,—136 were due to acute bronchitis, pneumonia, chronic bronchitis and other respiratory diseases.

Of 190,—7 died of pulmonary tuberculosis, of the remaining 183,—115 died of pneumonia and 14 of acute bronchitis.

Of 190 deaths, 136 were from some form of disease of the respiratory tract, while 54 died of other causes.

Excluding for the time being those due to tuberculosis, which may or may not have developed as such, *per se*, and dealing with those of purely non-tubercular type, we find approximately over 9/10% dying from some form of respiratory disease other than tuberculosis. Probably the majority of these developed primarily from a previous acute bronchitis.

Forcheimer's statement, that the natural tendency of an acute respiratory catarrh is to disappear and in most cases, if the patient be

kept warm and at rest, the disease will more or less rapidly go through its phases of congestion, secretion and final drying up of this, and will leave the mucous membrane none the worse for the invasion; no doubt agrees with the experience of most of us.

Unfortunately, most of the cases we see do not apply for relief until the pathological condition is well established.

An intimate acquaintance with the anatomy of the structures involved and the changes occurring in them during the various stages of the disease is imperative to successful treatment.

In the bronchial structure, (from without inward), we have,—*first*, the External fibrous coat, housing the cartilages whose function is to lend patency under varying degrees of respiratory pressure;—and *second*, the Second coat or Media composed of transverse muscle fibres which find attachment at their ends to the inner surfaces of the cartilages near their tips. These also bridge-over and attach to the external fibrous coat.

The function of the muscular coat is to dilate the bronchi on inspiration.

The *third* coat—the Mucosa, constitutes the Intima (inner coat) and is composed of three layers, namely, an epithelial layer,—a basement membrane, supporting the epithelium, and an outer (fibrous) coat composed of longitudinally disposed fibro-elastic tissue supporting in its stroma a rich plexus of very fine blood vessels, paralleling the course of the longitudinal elastic fibres. This stroma also supports an extensive aggregation of mucous glands.

Ascending the bronchial tree, we reach those bronchi less than $1/24$ of an inch in diameter and find their structure differing materially from the larger ones—they contain no cartilages and have no ciliated epithelium. The basement membrane diminishes hand in hand with the diminishing bronchi, until it finally disappears. These bronchi contain no mucous glands and should *receive* rather than *give* support.

Very tortuous in course, after repeated division and subdivision, they finally become the inter-lobular tissue and the peri-lobular capsule surrounding the ultimate acini or alveoli.

The alveolar wall is the final termination of the outer (from within outward) fibro-elastic coat of the Mucosa.

The Bronchial arteries form two vascular plexuses;—the outer supplies the external fibrous coat, muscular coat, pleura, inter-lobular tissue, bronchial glands and nerve ganglia,—the inner longitudinal plexus supplies the mucous membrane solely.

The outer transverse plexus is in the muscular coat, while the inner longitudinal plexus is in the outer (from within outward) fibrous coat of the Mucosa.

The capillaries of this inner plexus down as far as bronchi of the fourth division, empty into the pulmonary veins—therefore communicating directly with the left heart. Congestion of the pulmonary veins, which have no valves, produces congestion of the bronchial capillaries before congesting the pulmonary arteries—an inverted action.

The Pulmonary artery is loosely attached to the large bronchi and is *relatively* small, (as compared with its supporting bronchus), while the pulmonary vessels *exceed* in size the *smaller* supporting tubes, whose frail walls contain no cartilages.

These tubes being closely invested by the accompanying exceedingly tortuous—relatively large vessel; any undue congestion of these

vessels, depending for support upon these attenuated tubes tends to diminish their lumina and is of serious import to the infant.

Authorities state that this fibro-elastic coat in children is very loose and offers little resistance to the longitudinal plexus of vessels when engorged; but that after the fifth year, the assumption of the adult type of tissue here, having greater resisting power, lessens the tendency to engorgement.

In children suffering from acute bronchitis, we have to deal with the vascular plexus in the fibrous coat of the Mucosa. It then becomes a mechanical factor:—Engorgement of this plexus encroaches upon the membrana propria, displacing it centripetally, undulating the inner surface of the supporting tubes and diminishing the calibre of their lumina.

While the area of the Pulmonary capillaries is *smaller* than that of the Systemic capillaries, the amount of blood carried is the *same*. If congestion of these underlying capillaries is not controlled, exudation rapidly ensues from both the epithelium and the mucous glands. Authorities place this variously at from twenty-four to forty-eight hours in ordinary cases—in severe inflammations, such as influenza and the exanthemata, in from four to six hours.

Holt's definition of acute bronchitis as an inflammation of the mucous membrane of the bronchi, is probably as comprehensive as any other definition. He states further, that the predisposition to acute bronchitis exists with the constitutional conditions, and is acquired in the same manner as the predisposition to acute catarrhal inflammations of the upper respiratory tract.

Children suffering from malnutrition and rickets show this apparent predisposition, as we all know. Various authors claim its frequency diminishes steadily after the second year—I am inclined to view this as too short a time, and believe that the fourth and fifth years—especially in those predisposed to bronchitis, would seem more plausible, as at that time, the stroma of the mucosa becomes more resistant—more adult in type, offering greater lateral resistance or support to the capillaries hanging in the bronchial tree.

Bearing in mind the disturbed physiology and the pathologic changes taking place in the vascular plexus of the mucosa, the epithelium, and the membrana propria, the indications for treatment will manifest themselves.

The object of our treatment should be, to relieve the congestion as early and rapidly as possible, to prevent the development, whether by extension or otherwise, of pneumonia.

Acute Lymphadenosis Probably of Streptococcic Origin

H. JOACHIM, M. D.

Brooklyn, New York.

P. P.—Male, 13 yrs. born in U. S. of Italian parents was admitted to the medical service of the Long Island College Hospital on Oct. 13, 1920 and was discharged on Dec. 2, 1920.

His chief complaint on admission was pain, swelling and redness of his knees, ankles and wrists with inability to move the affected joints.

His family history had no bearing on his present illness. His past history reveals an attack of acute articular rheumatism one year ago from which he made an uneventful recovery. There is no previous history of tonsillitis, of the exanthemata, the patient had an uncomplicated measles during childhood.

His present illness began five days prior to his hospital admission, with slight pain in the right ankle accompanied by some swelling and limitation of motion. This was followed by a similar involvement of the right knee associated with fever, sore throat and vomiting. Swelling of the left knee and right wrist followed rapidly. From his history the impression was gained that the boy was suffering from an attack of rheumatic fever.

The physical examination on admission showed a fairly well developed but rather pale looking youngster, with a slight postcervical adenopathy on the right side. Pulse 128 regular of good quality, with an admission temperature of 105.4°. His pharynx was slightly congested, tonsils buried, no exudate. There was a faint systolic murmur at the apex which was not transmitted to the axilla. His P_2 was not accentuated. There was no cardiac arrhythmia. The articular areas at the wrists, knees and ankles were swollen, reddened, warm and tender to manipulation. The history impression of rheumatic fever was substantiated by the physical examination.

A complete blood count taken on admission gave a Wb. of 65% (Sahli) R. B. C. 3,250,000, W. B. C. 11500—Polys 65%; small and large lymphas 28%; Eosinophiles 1%; and transitionals 6%. A blood culture and Wassermann on same date were negative. An X-ray of teeth and sinuses revealed no pathology. His urine culture was negative, the sp. gr. varied from 1012 to 1038, total quantity was about 900 cc. and his red test was 60% for two hours.

On Oct. 22nd, nine days after admission his spleen was distinctly enlarged, and a diffuse glandular enlargement was noticed. His preauricular, cervical, axillary, epitrochlear and inguinals varied in size from an almond to a walnut. They were movable, discrete and not tender. His temperature was distinctly intermittent, ranging from 98° to 106° in 24 hours, accompanied by drenching perspiration. There were no chills. Repeated search for malarial plasmodium was negative. Four blood cultures were sterile. Agglutination tests for typhoid and Para A and B were negative. Stool culture revealed the normal intestinal flora. A blood count taken on Oct. 26th gave 17,300 whites with Poly 88%, Lymphos 12%.

The following possibilities were then considered:

- (1) Pfeiffer glandular fever.
- (2) Lymphatic tuberculosis.
- (3) Acute Hodgkins.
- (4) Still's disease.
- (5) Aplastic lymphemia.
- (6) Sepsis.

On the 28th of Oct. the patient developed a diffuse miliaria, accompanied by a diffuse erythematous and urticarial rash. These were thought to be due to quinine and salicylates which were immediately discontinued. The rash disappeared but recurred again two weeks later.

The joint symptoms had entirely cleared up, but the temperature and adenopathy persisted. The tonsils were massaged and a smear

taken which showed a staphylococcus predominating with some streptococci.

An X-ray of the chest for enlarged thymus bronchial glands and tuberculosis was negative. His urine was cultured for tubercle bacilli and was found negative.

On Nov. 13th his white count had dropped to 4800 cells per cu. mm with 66% Polys; 31% Lymphos; 2% Ecos; and 1% Myelocyte. To clear up the diagnosis it was decided to excise a lymph node. The latter was done under general anesthesia, and a large inguinal gland was excised by Dr. A. Goetsch. The same was cultured and a non hemolytic aerobic, Gram positive streptococcus was recovered. A section of the node was submitted for histological examination and was reported as an irritated lymph node.

On the 26th of Nov. his temperature curve struck normal and persisted till discharge. His white count at that time was 6800 71% Poly; 28% Lymph; 1% Baso. The boy subsequently reported at the clinic on two occasions with no evidence of enlarged glands or other abnormality.

Within the past year certain types of acute adenopathies have been reported which were of obscure origin and did not fall into any of our previous classifications. Recently, Bloedorn and Houghton reported four cases under the title of acute benign lymphoblastosis. In their cases there was a relative lymphocytosis. Sprunt and Evans reported six cases. They called the conditions a mononuclear leukocytosis in relation to acute infections. Neither of these reports gave the blood picture of our case. In none of these series was a gland excised or cultured. In 1919 Kirkland of Cheltenham, England, described an epidemic of glandular enlargement characterized by relapses in temperature. Unfortunately the blood picture was not reported. The cultivation of bacteria from lymph nodes has been reported many times. Just what deduction may be drawn from these cultures it is difficult to say. In our own case, a tonsillar infection, involvement of many joints, a septic type of fever, a septic rash and a diffuse adenopathy with recovery of a streptococcus would point to the latter organism as probably the causal factor of the whole picture.

Preliminary Report of Studies on Basal Metabolism

L. C. JOHNSON, M. D.

Brooklyn, New York.

STUDIES in metabolism had their first beginnings when Lavoisier conceived that life processes were those of oxidation, with the production of heat. These processes may be measured directly by the calorimeter, or indirectly by calculating the amount of heat produced by an organism from the amount of oxygen consumed, or the amount of carbon dioxide excreted. The agreement between the two methods of determination has been well confirmed. By basal metabolism or basal metabolic rate, is meant the heat production of an organism at complete rest, 12 to 18 hours after the ingestion of food. For clinical purposes this rate may be determined either from the amount of oxygen consumed, or from the carbon dioxide output in a given period.

of time, but Benedict believes that the former gives a closer index of the heat production, and offers less chance for error.

This paper is a report of 68 basal metabolic rate determinations made on 51 individuals at the Long Island College Hospital, and calculated from the oxygen consumption. The apparatus used is the large Sanborn portable respiratory apparatus, and consists of a spirometer bell counterpoised on a pulley, with a scale and indicator attached at the side, reading the volume of the bell directly in cubic centimeters. A blower is attached to circulate the air through a bottle of soda lime for the removal of carbon dioxide, and delivers the oxygen-air mixture at such a rate that the individual is required to make no effort in breathing. A thermometer at the top of the spirometer bell indicates the temperature of the gas within. The individual takes no food after the evening meal, and preferably not even water, and at 8 o'clock in the morning is placed in bed in the metabolism room, to rest for one-half hour. During this time the spirometer bell is filled with oxygen, the machine tested for tightness, pulse, respiratory, blood pressure, and temperature records are made on the patient. The purpose and mechanism of the procedure are explained to insure as complete co-operation as possible, and to allay what fears may be present. Without complete co-operation, satisfactory results are difficult to obtain, and we have found men much less amenable than women. The subject is then connected to the apparatus by means of a rubber mouthpiece, after the nose has been clamped. The valve is turned so that at first only air is breathed, and then turned so that the subject is in connection with the spirometer bell. After a minute or two, a reading is taken on the scale at the end of expiration, the time is noted and the temperature of the spirometer bell. Three minutes later a second reading of the scale is made, and three minutes later, a third, and three minutes later, a fourth and the temperature of the bell again noted. Pulse and respiratory rates are recorded in each three minute period, being counted over a full half minute. Likewise any movements or unusual happenings, as cough, on the part of the subject are noted. If the differences of the reading are not greater than 50cc, the test is completed, but if there is a greater variance, the nine minute session must be repeated. The subject should experience no discomfort throughout the test, and the pulse and respiratory rates should decrease rather than increase. Calculation of the rate is thus based upon the oxygen consumption of three three minute periods, and the formula for computing takes into consideration, the body surface, height, weight, age and sex of the subject, as well as the reduction of the gas volume to zero degrees C. and Bar. 760mm. The rate is expressed in percentages of the normal, and either plus or minus. A $\pm 10\%$ is interpreted as the limit of normal variation.

A study of the determinations made thus far brings out two points very definitely; first, the value of basal metabolic rate determinations in differential diagnosis, and second their value as guides in treatment.

The metabolic rate is not always an index of the toxicity of the patient, but it is often the determining factor in deciding the proper time for operation, and whether lobectomy may be attempted at once or after preliminary ligations.

In 39 of these 51 individuals the basal metabolic rate was determined for diagnostic purposes, and in 12 of these 39, led to the diagnosis of thyroid disturbance. Of these 12, 6 were proven by study of the gland section after operation, and 2 by medical procedures

for hyperthyroidism. All of the 39 represent border line cases, in whom the clinical findings were such, that the thyroid was considered as the causative factor in the production of symptoms. Their complaints consisted of, weakness, particularly on exertion, palpitation, loss of weight, slight or no increase in the size of the thyroid, tachycardia, sweating, and general inability to combat with the claims of their environments. They include the general disturbances due to puberty or menopause, or other endocrine imbalance; those suspected of having tuberculosis; those with pathology of the gastro-intestinal tract; and a large group who have been classed as neurotic, psychopathic, or hysterical individuals, and who present the features of effort syndrome, or vasomotor instability. 12 of this group had metabolic rates below normal, although their signs and symptoms were nearly as marked as proven cases of hyperthyroidism. Certainly a minus rate excludes hyperthyroidism, and the metabolic rate of true hyperthyroidism is plus 10 or higher.

Of the cases with thyroid disease, there were 2 with toxic adenoma, and the preoperative basal metabolic rates were + 23% and + 12%. Within 2 weeks after lobectomy, these fell respectively to -6% and -3%, with a prompt recovery from symptoms. This agrees with Plummer, who states that thyroidectomy almost immediately cures the hyperthyroidism due to adenoma. There was one case also of adenoma, non toxic, who had a normal basal metabolic rate. Likewise we have found agreement with Plummer and Boothby that in exophthalmic goitre there is not this rapid fall to a normal basal metabolic rate after operation.

There were 12 of these cases in this series, and the basal metabolic rate remained high long after operation, although there was definite improvement in symptoms. Case 10 is fairly typical.

	Interval	Pulse	Resp.	Weight	B. M. R.
Preoperative		126	14	118	+ 74%
After Ligation (Sup.)	10 days	98	11	113	+ 57%
“ “ (Inf.)	9 days	123	11	112	+ 70%
“ “ “	1 month	114	11	126	+ 60%
“ Lobectomy	10 days	93	10	119	+ 34%

There was definite improvement in subjective symptoms after each operation, but the metabolic rate was continually high, and independent of whether there was a loss or gain in weight. The higher rate after the second ligation was undoubtedly due to an overdose of toxin, incident to the manipulation of the gland at the time of operation. After the month of rest at home, before lobectomy was done, in which time there was a gain in weight of 14 pounds, the patient felt so much improved that she considered further operation as entirely unnecessary. Her metabolic rate at this time was + 60%. Undoubtedly this determination affords a definite index of the toxicity of the individual, and is much more to be relied upon than symptoms. These cases have all been studied with Dr. Emil Goetsch, with particular attention to discover any discrepancy between the evidence presented by the basal metabolic rate and the adrenalin test. In no case has there been any contradictory evidence by the two tests, and working separately, neither has prejudiced the other.

The hyperthyroid cases, of which there were 7, included 2 which were treated medically. One, a nurse, sought advice because she feared she had tuberculosis. She complained of general weakness,

loss of weight, palpitation, and choking sensations. Her physical examination was negative except for a tachycardia, and a slight tremor. The adrenalin test was positive, and her basal metabolic rate was $+34\%$. After a month of rest, without medication, her symptoms had subsided, she made a gain of 5 pounds in weight, and her basal metabolic rate was -3% . A similar case had a rate of $+35\%$ and after a three weeks stay in the hospital, during which tonsillectomy was performed, her metabolic rate fell to $+4\%$. These cases will be followed with metabolic rate determinations, and their general management and conduct altered accordingly.

We must conclude that basal metabolic rate determinations are of definite help in differential diagnosis, and as a guide in conduct and treatment of cases. We believe that the respiratory apparatus is a decided addition to the diagnostic procedures now employed, and as Boothby has said, it does serve to separate the cases who have a normal, or decreased or increased metabolic rate. We have found it always confirmatory in its evidence, and often it has been the deciding factor in separating those conditions which resemble hyperthyroidism symptomatically, from true thyroid toxicosis. Certainly it is in these very cases that we need most help, and we believe that further study will bring about more definite figures in some conditions, and permit a sharper line of demarcation, as we correlate the gland pathology with the symptomatology, basal metabolic rate, adrenalin test, and therapeutic procedures, whether these be surgical or medical.

Schneider's Test in Pernicious Anemia

CASE REPORT.

E. S. PLATOU, M. D.

Brooklyn, New York.

E. W.—Age 18, Occupation, Clerk—Nationality, American.
White, Single.

History.

Chief Complaint—Vomiting, dyspnea, and weakness.

Family History—Father 54, living and well. Mother 50, living and well. Brothers 1, 17, living and well, none dead. Sisters none.

History negative as regards cardiac, tuberculous, renal, rheumatic, diabetic, gouty, epileptic, alcoholic, hemophiliac or neurological, diathesis both in immediate and relative families.

Past Personal—Early childhood always well; school 5 to 17; Diseases: measles at 11; uncomplicated—otherwise negative.

Operations: herniotomy at 5 years. Successful result.

Cardio-respiratory

Gastro-intestinal

Genito-urinary—all negative.

Habits—Good; sleep ten hours; appetite good; no addiction to drugs or tobacco.

Weight—lost 43 pounds in 2 years.

Present Illness—Patient dates the onset of his illness back two

years when he had influenza, which lasted 7 days and was uncomplicated. He went back to work for 1½ months. He then noticed general asthenia, and dyspnea on exertion. Took 3 weeks vacation in the country, gained 10 pounds and returned feeling fine. Went back to work for a month. At the end of this period he noticed small ulcers appearing on the surfaces of mucous membranes of the gums, buccal region, and the sub-lingual space for which he received medical attention (iodine and cautery). His voice was affected for 2 months. Then he noticed nausea, and belching, and vomited on several occasions. No hematemesis. Food particles were visible. The vomiting came directly after eating. An abdominal binder was applied to relieve gastroptosis and he felt better with this support, but still felt weak, even in the morning on awakening. He took another vacation for 4 months in Canada where he improved and gained 20 pounds. Weakness left him and he had no more vomiting. Returned home and was very well for another two months. At the end of this time he developed a dry unproductive cough not associated with fever, afternoon temperature or night sweats. X-ray of the chest at this time showed a healed tuberculous lesion at the left apex. He went to the mountains and while there for 2 months was perfectly well, free from weakness, and gastric distress. At the end of the third month he again noticed weakness, and lost all appetite for food. He had a recurrence of the stomatitis resembling closely the previous attack and during the course of this lost 7 pounds. There was no vomiting at this time. On returning to the city he again began to vomit, the weakness became more profound and he had very little desire for food. At this time he was sent to the hospital.

Physical Examination—First Admission....

T—98.6 P—80 R—20.

General Statement—*Adult male, age 18, 5 feet 11 inches tall. Weight 137 lb. Poorly nourished and anemic; skin showing a lemon yellow tint. He is lying in bed in no apparent discomfort.*

Large follicles are seen on the base of the tongue with evidence of old multiple ulcers on the buccal mucous membranes. Tonsils small and apparently not infected. Slight anterior and posterior cervical and axillary adenopathy.

The *chest* shows an acute subcostal angle with slight embarrassment of excursion on the left. The percussion note is slightly impaired anteriorly and posteriorly at the this apex. Auscultation over the same area reveals a few moist rales persisting after cough heard best at the end of inspiration. Spoken and whispered voice transmission seems slightly diminished. *Heart* shows no enlargement but a *slight systolic blow* is present at the apex, poorly transmitted to the axilla. The *abdomen* is of the scaphoid type with the *liver margin two fingers below the costal border in the M. C. line. Spleen is palpable;* and the greater curvature of the stomach is at the umbilical level. No masses felt. No tenderness and no rigidity.

Neurological examination reveals general asthenia but no localized motor impairment. No evidence of cranial nerve palsy. To bath-esthesia, or impairment of tactile sense. Tuning fork experiments and tests of coordination are negative.

Opinion—Pernicious anemia; pulmonary tuberculosis.

Laboratory Data

Blood—R. B. C. 2,320,000; W. B. C. 7,200; Hgb. 50% (Sahli) Index 1.08 Differential—Neut. pnn. 59; small and large lymphocytes 41/1 megaloblast seen. Poikilocytosis, anisocytosis.

Coagulation time 7 minutes. Reticulated R. B. C. .1%; platelets 140,000. Fragility 4.5 no hemolysis; 4.0 complete hemolysis.

Wassermann—negative.

Chemistry—Urea nitrogen 13 mgs per 100 cc; sugar 125; urea 27.8 uric acid 6.25; creatinin 1.3.

Urine—Turbid; 1030; acid; amber; albumin negative; sugar neg.; Few uric acid crystals; no R. B. C. or W. B. C.; no casts.

Renal meal—Night amt.	190 cc	1027 sp gr	P. SP. 1st hr.
10 a. m.	50 cc	1021	25%
12	60	1023	2d hr.
2	35	1025	40%
4	40	1026	
6	30	1030	
8	40	1028	

445

Stool—Brown, medium consistency, starch granules, no parasites or ova. Negative for macroscopic and chemical blood.

Gastro intestinal—Rehfuss—No free HCL. Total acidity below 20 in all specimens. Boas rennin test—ferments present; no blood; bile or lactic acid. Few leucocytes and epithelial cells.

Schneider Test—(Bile pigments) First extraction 10/20/20—Bilirubin 2 x; urobilinogen 1600 units

urobilin	2400
total	4,000

Urine—is positive for urobilinogen and urobilin.

10/27/20	urobilinogen	2200
	urobilin	800
	total	3000

Hospital Course.

Patient remained in the hospital eleven days during which time he was given HCL dil. minims 10 t. i. d. and ferric cacodylate intravenously, gr. $\frac{1}{2}$, every other day. He was put on forced feeding and with rest, fresh air and daily trips to the roof, he felt very well and was discharged.

SECOND ADMISSION

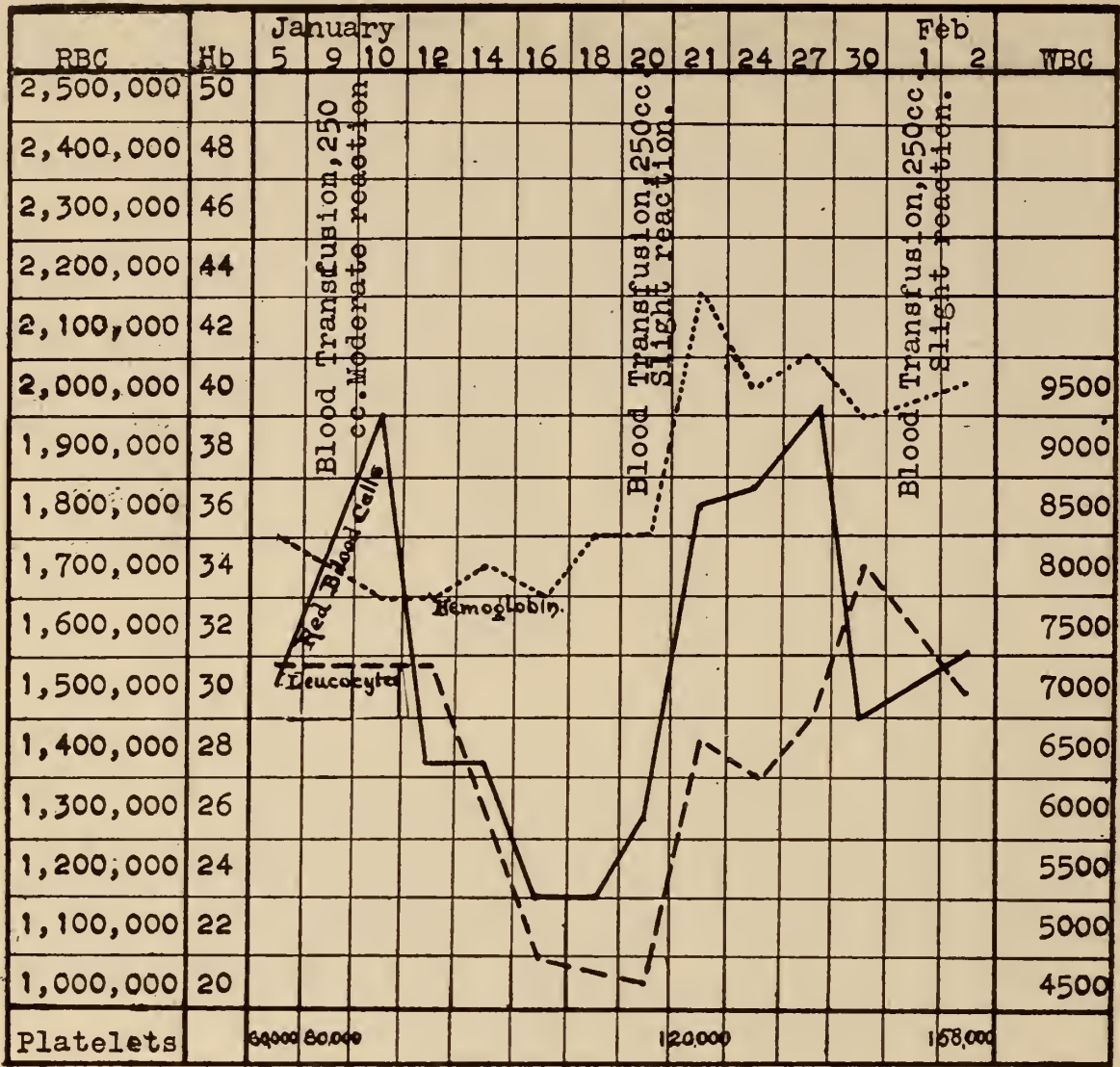
Following discharge from the hospital patient felt well for a month and a half; then he lost his appetite entirely; became very weak, dyspneic, and could scarcely walk. He vomited daily and was able only to take very light fluid food; was again sent to the hospital.

Physical Examination.

T—99.2 P—100 R—22.

General statement—Marked emaciation, lemon yellow color; and extreme pallor.

Graphic Representation of Blood Findings On Second Admission



Poikilocytosis and anisocytosis at each examination.
No stippling, no megaloblasts, no normoblasts found
on repeated examination.

Chest findings are the same as on previous admission, Heart shows a gallop rhythm and a systolic murmur at the apex and the base. Bruit diable in the episternal notch. Sternum tender to palpation. Spleen palpable.

Neurological examination same as on previous admission.

Refers.

G*-U Tract-negative.

Ears, Nose, Throat, Sinuses—negative.

Eye Grounds normal.

X-ray—Dilated, ptosed stomach, no intrinsic gastro-intestinal pathology.

Sinuses—negative.

Teeth—negative.

Chest—marked increase in peribronchial markings to the left apex and to a lesser degree to the right apex; both extreme apices show indistinct rather filmy areas of infiltration about 2 cm in diameter in which are several more distinct miliary areas of infiltration. This probably represents an incipient active tuberculous lesion.

Discussion: A few remarks may be fitting at this point in regard to the study of the biliary pigments mentioned under "laboratory data."

The significance of the pigmentary excretion has been summarized by Wilbur and Addis¹ after careful investigation of the subject.

It is believed that urobilin forms as a result of intestinal decomposition from bilirubin, a substance present in the biliary passages, which in turn has its origin in hemoglobin. The parenchyma cell of the liver is believed responsible for this transformation from the hematin portion of hemoglobin to bilirubin. Furthermore the urobilin so formed in the intestine is in part absorbed, and after passing through the portal circulation, is synthesized by the liver cell back to bilirubin. Some of it, however, is thought to be excreted in the bile; and in the presence of liver pathology the interference with this synthesis causes a portion to be carried over into the general circulation and excreted in the urine. That portion not absorbed is excreted in the stool. In cases where this latter amount is increased above the normal they believe that it signifies increased blood destruction.

Schneider,² believing that a determination of these pigmentary values in the *bile* would be a more accurate index of the destructive processes, applied the method of Wilbur and Addis to the bile. It was his contention that the pigments so studied are secured from the very fountain head of their production and further that the factor of variable intestinal resorption is obviated.

Relative to the technique of the test a few words may be said. For the sake of brevity, however, I shall dispense with a discussion of the method of securing the duodenal contents.

Bilirubin. To 10cc. of duodenal contents are added 10cc. of an alkaline solution of calcium chloride. After a vigorous shaking this is filtered. A precipitate is desolved under a gentle heat in 10cc. of acid alcohol and the resulting green solution compared to a standard.

Urobilin and Urobilinogen. To 10cc. of duodenal contents are added 10cc. of Schlesinger's solution, the whole thoroughly shaken and allowed to filter. The filtrate should be inclined to be slightly alkaline; if not, a drop or two of dilute ammonia solution are added. The filtrate will in the presence of urobilin show a more or less pronounced green opalescence. To 10cc. of this filtrate are added 1cc. of Ehrlich's benz aldehyd solution. In the presence of urobilinogen a red color will develop. This is allowed to stand in a dark place for fifteen minutes, when it is subjected to a spectroscopic study for the values of both urobilin and urobilinogen. The acid character of Ehrlich's solution enhances the absorption bands of both these pigments many fold, the urobilinogen band being a very dense, narrow one in the yellow and the urobilin a wide one covering all of the blue into the green, the acid shifting the latter to the blue side. The above solution is read in a graduate, and dilutions made with 95% alcohol, until a point is reached for each pigment where the absorption band will have disappeared. The number of dilutions required for each element multiplied by twenty, (5cc. of the original duodenal contents being used) will be the dilution value per 100cc. Following the basis used by Wilbur and Addis, the values have been reduced to the scale of 1,000cc.

The above technique with slight modifications has been utilized in this study. A study of the values thus obtained in an extensive series of extractions has established the following facts:

1. That the presence of urobilinogen in the bile in considerable amounts is a pathological finding.

2. That urobilin does not occur in the duodenal contents of a normal fasting adult in values exceeding 1,000 units of dilution.

3. That diet has no influence on the values of either pigment..

In conclusion it may be said that the test probably has its greatest usefulness clinically in differentiating cases of pernicious anemia, from obscure cases of severe secondary anemia resulting particularly from carcinoma and hemorrhage. In the former the values generally run extremely high, whereas, in the latter, they are not increased above the normal.

In the case just cited the values of 4000 units on one occasion and 4800 on another were certainly a distinct aid in the diagnosis in view of the patient's youth and the absence of neurological findings.

¹ Wilbur & Addis-Arch. Int. Med. 1913 XIII 235.

² Schneider J. P.-Arch. Int. Med. Jan. 1916 XVII 32.

Schneider J. P., J. A. M. A. June 26, 1920 Vol. 74 P. 1759.

Schneider J. P.-Arch. Int. Med. Jan. 1917 XIX 156

Whooping Cough, Second Attack

ARCHIBALD D. SMITH, M. D.

Brooklyn, New York.

A. B., 13 years old, has a good family history.

Previous History. Has had measles when 7 years of age. Has had whooping cough previously when 4 years of age. As the father is a physician, and observed the child in this first attack of whooping cough, I think we can accept the diagnosis as certain, inasmuch as there was a cough that lasted for about six weeks, spasmodic in character, and accompanied by an occasional whoop and vomiting. During the latter part of the attack, our patient and a younger brother who had whooping cough at the same time, were thrown together with a little patient who was convalescing from whooping cough, and still coughing severely. There seems to be no question in the father's mind about the diagnosis of whooping cough.

Present History. About the Middle of May in a store in the country our patient met a child with a severe cough. The father of our patient remarked to the mother of the child with the cough that it sounded like whooping cough, which the mother indignantly denied. A week or ten days after this meeting our patient began to cough, and it seemed as though the cough were that of an ordinary cold with some bronchitis. Instead of getting better, however, the cough progressed and became worse, and at the end of three weeks was quite spasmodic, worse at night, and finally was accompanied by whooping and vomiting. Physical examination at this time showed some snorous breathing and some medium sized moist rales in the bronchi.

The Pertussis Glycerole Vaccine with diluent (Lederle) was used in treatment, Bordet's bacillus alone, in increasing doses, and 5 injections at intervals of 2 days were given except the interval between the 3rd and 4th dose was 4 days. (250 million, 500 million, 1,000

million, 2,000 million, 3,000 million.) Diatussin was also used. After the last dose the report is: "she gets along well, scarcely coughing during the day, and only moderately at night."

The blood examination in the 4th week showed:

White Blood Cells 11,200.	
Differential count.	
Polymorphonuclears	46%
Lymphocytes, large	6 $\frac{2}{3}$ %
small	42 $\frac{1}{3}$ %
Eosinophiles	5%
100	

A younger sister, after the usual incubation period, developed a severe attack of whooping cough. The prophylactic dosage of the vaccine (i. e., the first three given above,) did no apparent good. The two additional doses seemed to modify the paroxysms.

Patients are sometimes brought to us with whooping cough, and their history reveals what the mother says was an attack of whooping cough previously. On inquiring into these cases more closely, we find that either they did not have the diagnosis of a physician or that the typical symptoms and duration of whooping cough were not present.

But here we have a rarity, a case of whooping cough in a child who has previously had it, the previous diagnosis being made by a competent observer.

Holt, *Diseases of Infancy and Childhood*, (1917) says: "As a rule one attack protects the individual during his life. The great majority of the reported instances of second attacks are certainly to be explained by mistakes in diagnosis."

Pfaundler & Schlossmann, *Disease of Children*, (1908) say: "Permanent immunity is almost always acquired by those who have had an attack of pertussis." And again: "Recovery from whooping cough almost always insures immunity for the remainder of life." And again: "It is possible that a child may become affected with pertussis a second time—an interval of complete health extending over years precluding a relapse of the first affection—but in such an event the course of the disease is rapid and light."

Dunn, C. H., *Diseases of Children*, (1917) says: "An attack of whooping cough confers a high degree of immunity, so that second attacks are rare. They are seen at times, however, and are rather more frequent than in the exanthemata. Second attacks are almost never seen in childhood, but are commonest in adults who had whooping cough in childhood, and who are brought into close and long continued contact with children sick with the disease."

Griffith, J. P. Crozer, *Diseases of Children* (1919) says: "It sometimes happens that the symptoms of the disease reappear after an interval of weeks or months. Whether this is to be classified as a true relapse is uncertain." And again: "Recurrence is very rare, one attack almost always giving permanent immunity. Errors in diagnosis account for many supposed second attacks. Le Gendre writing in 1891 could find but 9 recorded cases of recurrence, including 1 observed by himself. . . . It is possible that this does not apply so strictly to adult life, and that the immunity may occasionally become exhausted at this period. I have seen a few instances in which mothers of children with pertussis developed a modified second attack, and

Widowitz records 7 instances of second attacks of the disease in individuals over 30 years of age."

Summary. The patient has whooping cough. The diagnosis is without doubt. Typical onset, typical symptoms, suggestive blood examination. Younger sister, 5 years old, has severe attack of whooping cough, as a result of infection from this patient.

The patient has previously had an attack of whooping cough, observed by the father, an exceptionally able and conservative physician.

The rarity of the recorded cases makes it worth while placing this case on record.

Is Hypo-Thyroidism Curable?

SIEGFRIED BLOCK, M. D.

Brooklyn, New York.

FOURTEEN years ago, at the out-patient service at the Long Island College Hospital, there appeared a middle-aged woman with three peculiar-looking girls, each about three feet in height, stout of physique and apparently abnormal mentally. All were dressed in deep mourning. The girls were distinctly filthy,—pediculi corpus and capitis, accompanied skin lesions of many varieties.

These persons were referred to the Neurological Department, where they gave the following interesting history: The woman was the aunt of the girls, who were found in a cellar in a little town in Western Pennsylvania. Their parents had died and these feeble-minded children remained in this cellar through fear. The Children's Society in that city investigated the case and communicated with this aunt who brought the girls to Brooklyn.

On examination it was found that their ages were respectively ten, eleven and twelve years. They could neither read nor write; had no sense of modesty, and in general behaved like youngsters before school age. They appeared according to tests, very degenerate, and only about four years mentally. Physical examination proved them to be very unclean, pulse very slow,—the youngest only forty per minute. The secondary sexual characteristics were present in all, as pubic hair, enlarged busts, etc. Two of the girls had menstruated, but no one knew when this had started. The hands were rather thick, with short, stout fingers; the pelvis more like that of women than children. A diagnosis of hypo-thyroidism was made in all three.

The children were taken to a priest with whom they were to live. He spent much time in teaching them. The aunt clothed them, and we fed them upon Thyroid Extract. At first, only five grains daily were given but gradually the dose was increased until forty grains a day were given to one girl. The others stopping respectively at thirty and thirty-five grains daily. Tremors and tachycardia were the guide when to stop or diminish our dose.

For one year these patients attended the clinic weekly. Gradually, however, they came less and less often. Finally ten thousand thyroid tablets were obtained by the Aunt. She would watch the pulse and look for tremors and only present the children at the clinic when she

thought hyperthyroid symptoms were developing. After about the second year, they were not heard from again.

On May second of this year, fourteen years after they were first seen, the aunt and one of the girls visited the writer's private office. They were not recognized, but this girl is now five feet tall and weighs one hundred and ten pounds. She seems mentally about normal, and has charge of the entire manicure department of a large store, having several assistants under her direction. One sister is a book-binder and earns thirty-five dollars a week,—an expert in a highly skilled trade. This last girl is five feet-two inches tall. The other sister is also five feet, two in height, and is married and has an apparently healthy child of two years. Her husband is an architect and they conduct a very nice home. Both single sisters are engaged to be married to young men whom the writer has met. It hardly seems possible that all of these men would marry feeble-minded persons.

The aunt says that for the fourteen years these girls have been taking thyroid extract, at times as much as fifty grains per day. Her visit to my office was to ascertain whether they could stop the medication. Each takes now five grains a day, and each third days we are cutting down one grain per day.

This interesting family is reported for three reasons. First, to show a typical familial endocrinological disturbance; second to prove that properly handled, cases of mental disorder can be apparently cured. Third, that intelligently used, thyroid can be taken for many years without apparent harm to the patient.





EDITORIAL



The Editor Builds a Boat

NOT always does the editorial mind busy itself with the scientific and ethical problems of medicine. No always does it occupy itself with thoughts of professional uplift nor worry over the older and newer forms of devilment devised by reformers to ensnare the unsuspecting doctor. There are times when it follows the advice of Cicero and withdraws to some remote, delightful spot—*remoto, salubri-ly amoeno loco*—to renew its strength for the ensuing year. A physician who knew once said “No doctor, however poor, can afford not to take a vacation. Let him borrow, if needs must. The interest on one hundred dollars is six dollars a year; and the benefit cannot be measured in money.” That this was good advice we have proved by not taking it and, in course of time, the penalty had to be paid. Wherefore, now we are sitting where inspiration can be had by looking up from ones copy across miles of wind ruffled water, sapphire beneath pearls, to a headland of yellow sand capped with green; and what makes the picture lovelier and the wind more welcome, is the sunshine that shows now for the first time after two weeks of fog and heat that have made life hard even here and have, so we hear, been cruel to bear in the city.

Yes, we have put on our oldest pants and our thinnest shirt and, because boats are few and of great price, we have built a boat. We is not editorial, but means father and the boys. The idea took shape from one of those magazine articles that, tricked out with diagrams called “working plans,” looked practical to the unwary. Surely none but a marine architect could have drawn those plans! Our suspicions should have awakened when we read “two boys can construct this in a day.” Evidently one adult man, even though he has had a surgical training, offsets the two boys, for it took us more than three days to construct—like one of those problems in Wentworth’s Algebra that asks us to find out how long A and C need to build a house if A and B can do it in ten days and B and C in fifteen days. And then we had to stop the cracks, even as Noah when the Ark was pitched within and without. The magazine neglected to mention anything about paint, a sticky substance that is applied with a brush and removed with difficulty and a gasoline rag from everything and everybody but the boat. It comes off quite easily from that and continues moist and sticky after many days. The magazine also forgot to say that cypress lumber (which it recommends) costs about twenty-two cents a board foot; but possibly the salesman recognized our innocence and profiteered a bit. Did I mention that we chose a quiet, woodsy glade in which to paint the boat? We did; and so did a host of hungry, ill-bred mosquitoes that did not wait for Grace, but made it

a picnic luncheon. But the practice of medicine makes one resourceful and we circumvented them by means of newspapers and a length of green mosquito netting. The newspapers are bound about the feet and ankles. The netting is draped about an old straw hat with spreading eaves and secured with safety pins just below the shoulders. Our wife, who arranged the drapery, said that we looked like the Queen of Sheba, only worse. Oh, yes! It was hot, we sweat and the green ran, being a fast color. Now I have forgotten to say anything about the pants. They were our oldest ones and much worn by our editorial occupation, which is sedentary. This probably explains the refreshing coolness that was felt locally when we stooped to lift the stern of the partly finished boat. This was before the mosquitos attacked us, and to make sure that our rear was well guarded, we secured the gaping rent with adhesive plaster. This use is not mentioned specifically in the advertisements, but is of cosmetic value *in cool weather*. I said that it was a sweaty day when the boat was painted and the netting was pinned about the shoulders. There was a breach in our defenses. What between the perspiration, the paint, the mosquito netting and their original tasteful pattern, Joseph's coat of many colors had nothing on our pants! The boat is not yet ready for use and at this writing I do not know what position it is likely to assume in the water. Our butcher, who claims to be a judge of boats, says that it is likely to be cranky because it is not sheer enough. These technical terms were not mentioned in the working plans and so I do not understand them fully; but if the August number of the Journal appears without a mourning border, our readers will know that she floats.

H. G. W.



MEDICAL BOOK NEWS

Edited by JAMES M. WINFIELD, M. D.

All communications, books for review, etc., should be addressed to the Editor of this Department, 1313 Bedford Ave., Brooklyn, New York

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4 Pages

TREATISE ON FRACTURES.

TREATISE ON FRACTURES IN GENERAL, INDUSTRIAL AND MILITARY PRACTICE. By John B. Roberts, A. M., M. D., F. A. C. S., and James A. Kelly, A. M., M. D. Second Edition, revised and entirely reset. Phila. & London, J. B. Lippincott Company, 1921. 755 pages, 1081 illustrations. 8vo.

In this, the second edition, the text has been thoroughly revised and reset and many valuable illustrations have been added. The lessons taught by the war in this class of cases have been here set down for the benefit of all who care for them.

A wise distinction is made between contaminated and infected fractures.

Some of us may hesitate to agree with the dictum, "Joint fractures should not be kept immobile more than 2 or 3 days," but it is very pleasing to have the dangers of tight circular bandages repeatedly emphasized and to be told that it is "Probably seldom wise to suture or plate fragments at the time of the primary dressing of an open fracture." Also, "The cases of fracture requiring operation are comparatively few."

The treatment of Fractures of the Clavicle omits several valuable methods, but, in general, it may be said that the necessary ground is thoroughly covered. The section on Fractures of the Vertebrae is unusually complete and valuable. This is a splendid book and will be a useful one to all who care for fractures.

HENRY F. GRAHAM.

MEDICAL ELECTRICITY, ROENTGEN RAYS AND RADIUM.

MEDICAL ELECTRICITY, ROENTGEN RAYS AND RADIUM, with a Practical Chapter on Phototherapy. By Sinclair Tousey, A. M., M. D. Third Edition, thoroughly revised and greatly enlarged. Phila. & London, W. B. Saunders Company, 1921. 1337 pages, 861 illustrations. 8vo. Cloth, \$10.00.

The third edition of Dr. Tousey's well known book on medical electricity, is greatly

enlarged and shows evidences of thorough revision.

This edition has been made especially valuable by the thorough discussion of phototherapy. Practically all of the newer advances of radiography and radiotherapy have been incorporated in the text.

In all respects the subjects have been brought up to date and thus the value of an already valuable work has been greatly enhanced.

The only criticism that can be made is, would it not have been better if the author had contented himself with a clear exposition of the principles of radiotherapy and not have given so much space to the discussion of the treatment of diseases in which X-rays are indicated?

The illustrations, many of them original, are excellent; the volume is gotten up in the usual Saunders manner.

MYSTICISM, FREUDIANISM AND SCIENTIFIC PSYCHOLOGY.

MYSTICISM, FREUDIANISM AND SCIENTIFIC PSYCHOLOGY. By Knight Dunlap, Professor of Experimental Psychology in the Johns Hopkins University, Baltimore. St. Louis, C. V. Mosby Company, 1920. 173 pages. 12mo. Cloth, \$1.50.

This small book has attracted a great deal of attention, chiefly because of its ruthless criticism of psychoanalysis. For the casual student of psychoanalysis, it is a dangerous book, because it is confusing. It contains a little truth but much error. Its dogmatism makes it doubly dangerous.

It is divided into three parts. The first part is devoted to the history of mysticism from the time of Scetus Erigina down to Coleridge, Emerson and others. Why the author should draw an analogy between mysticism and psychoanalysis is difficult to say, except for his own erroneous statement that they both use a type of reasoning known to logic as the "fallacy of the ambiguous middle term." Though Dunlap is not a physician, his official position as Professor of Experi-

mental Psychology at Johns Hopkins University would unduly influence some readers of his book.

When we remember that fundamentally psychoanalysis is a method to study unconscious motives of thought and conduct, both in health and in disease; that Dunlap frankly states that psychoanalysis rests on the theory of the unconscious, we must follow him closely in his denial of the existence of the unconscious. He refers to the method as a gigantic expansion of philosophical mysticism.

Now the careful student will immediately notice a serious contradiction between his sentiment and his theory, at the very beginning of his book. It is this: His book is an attack on the theory of the unconscious, yet, in spite of this he dedicates his book to Morton Prince of Boston, one of the best known students of the unconscious in America.

In a brief review we can only touch on a few points in this book. He is severely sarcastic in his handling of the details of the psychoanalytic technique. In fact his witticisms show too much levity for a scientific thesis. However, one must admit that his style is delightful.

The one good function that the book might have is that it might help to call a halt to some of the extravagant claims of some analysts. The latter prevent the profession as a whole from taking seriously a study of this valuable method. They might be compared to those who, posing as endocrineologists, develop a complete cult around small doses of thyroid, pituitary or "mixed glands," making factitious claims of doubtful cures.

Inasmuch as psychoanalysis has come to stay, it behooves the physician to make a proper psychological study of his nervous cases. Llewellys Barker emphasized this in his address at the last annual meeting of the New York State Medical Society in Brooklyn.

To Dunlap, psychology deals only with consciousness; all else is physiology. But physiology has hardly adequately explained the emotions; and instinct, not at all.

He strangely denies an unconscious in the psychoanalytic sense, but naively confesses to an "unconsciousness of low degree."

It must be remembered that psychoanalysis is not merely a study of sex. It is a study of all our unconscious mental processes. One cannot scientifically utilize the resistance against the study of sex, as the main prop in his objection to psychoanalysis. The primary question is whether there is an unconscious; if there is not, psychoanalysis falls,—being a method to study the unconscious.

It is well to keep in mind the statement of the late Prof. Putnam of Harvard, (N. Y. Medical Journal, June 15, 1912). "The opponents of the sex factor are becoming more temperate in their denunciation of this factor as a cause of the neuroses."

Even Dunlap admits the importance of sex in the causation of the neuroses. But he insists

(page 108) that it is in the pathological sex activities rather than in any ideas of sex, that the genetic importance of sex lies. Again he says (page 166) that the sex factor is one of the determining factors of all conscious life. Thus, he gives no aid to these, who would annihilate psychoanalysis because of their aversion to the sex element in it.

He says, (page 125), "We will ignore the cases of dual personality"; necessarily so,—for his academic psychology could in no way explain their genesis.

In a personal letter, in answer to my question how his psychology would explain, among other phenomena, obsession, he writes: "They are to be explained on the basis of habit formation." This is no more of an explanation than is his remark, "The only unconscious is the nervous system."

He says that the only positive service which psychoanalysis has made is along the line of desires—which psychology has been negligent in studying.

Dunlap's psychology agreeing with the academicians', is a static affair as contrasted with the dynamic vigor of modern psychology. His remark (page 165) that the psychiatrist must always be paced by the physiological chemist is certainly foolish, in the light of our present chemical-neurological knowledge. Such a pace-maker for psychiatry would cause a collision, resulting in the death of the science. Organic and chemical factors alone, will not explain psychological situations.

It is to be hoped that Dunlap will soon change his attitude toward psychoanalysis, (call it by any other name, if one wishes), as he did in 1910, when, after denying the value of biology to psychology, he then stated that biology was indispensable to psychology.

His book as the expression of an attitude is interesting; as a source of instruction, however, it has no value.

J. F. W. MEAGHER.

EYE, EAR, NOSE AND THROAT NURSING.

EYE, EAR, NOSE AND THROAT NURSING.

By A. Edward Davis, A. M., M. D. and Beaman Douglass, M. D. Second Revised Edition. Philadelphia, F. A. Davis Company, 1920. 346 pages with 32 illustrations. 12mo. Cloth, \$2.50.

It always gives an ophthalmologist a chill to see a nurse handle a cataract knife or an interne a cornea, in a general hospital. If this admirable little book were in the curriculum of every hospital, life for the attending specialist would be more pleasant.

It is clearly written, says enough, and rarely too much, and explains its statements, thus retaining the interest. The main conditions to be met with in eye, ear, nose and throat diseases are covered well and briefly.

In this edition a chapter on vaccines has been added, besides revision of other chapters. It is in fact, as the authors hope, a "safe and useful guide" for nurses.

E. CLIFFORD PLACE.

HANDBOOK OF ELECTROTHERAPY.

HANDBOOK OF ELECTROTHERAPY FOR PRACTITIONERS AND STUDENTS. By Burton Baker Grover, M. D. Philadelphia, F. A. Davis Company, 1921. 420 pages, illustrated with 103 engravings. 8vo. Cloth, \$4.00.

This volume of 420 pages including bibliography and index, is a treatise on the use of electricity in medicine. The first chapter treats of the fundamental principles of electricity. The next four consider the type of currents and description of machine used in electrotherapy. One chapter, the sixth, is given to the discussion of blood pressure. The remainder of the book is taken up with the discussion of the application of the various electrotherapeutic measures in the treatment of disease.

The chapter on blood pressure is alone worth the price of the book, for it appears to the reviewer, that the description of this condition is the clearest and most easily understood of any he has chanced to see.

The entire book is well written and the subject-matter well condensed but no salient points have been left out nor slurred over.

This work of Dr. Grover will be of great help to any one seeking light upon this subject. The type, paper and illustrations are excellent and altogether it is a very readable book.

PRINCIPLES OF THERAPEUTICS.

PRINCIPLES OF THERAPEUTICS. By Oliver T. Osborne, M. A., M. D., Phila. & London, W. B. Saunders Company, 1921. 881 pages. 8vo. Cloth, \$7.00.

The long awaited text-book that applies to therapeutics the modern conception of pharmacologic action without quibble or cross reference has arrived. It is quite an accomplishment to remove the chaff from the wheat in the use of drugs in the treatment of disease; contemporary practitioners are not willing to disregard their long-held ideas of the action of digitalis for instance, until they are convinced the newer ideas are well grounded. Dr. Osborne's book will do much to set such folks right as to the action of many of our extensively employed drugs to pathologic conditions. In addition to a wise elimination Dr. Osborne has incorporated much matter that will have special interest for the student—"Practical Advice to Young Practitioners,"

"The Narcotic Law," "Prohibition Regulations," Medical Ethics," etc. He has had the courage to insert a list of "Drug Fallacies"; this will be of special value to forthcoming practitioners and will give the contemporary physician an authoritative excuse for disregarding many of his former favorites.

As would be expected from this author, the subject-matter is scientifically accurate, terse and entertainingly presented. More need not be said of any work on Therapeutics. Having gotten away from the Vade Mecum idea, the result is a more or less dogmatic style that is both refreshing and sadly needed in therapeutic literature. Laboratory investigations have made possible specific statements that were not advisable a few years ago.

Certainly, this "Principles of Therapeutics" is the last word in modern therapy and should be the hand book of all who seek to apply the Materia Medica along modern lines.

M. F. DEL.

NEW POCKET MEDICAL FORMULARY.

THE NEW POCKET MEDICAL FORMULARY. By William Edward Fitch, M. D. Third Edition, revised. Philadelphia, F. A. Davis Company, 1921. 470 pages. 12mo. Cloth, \$2.50.

This pocket Formulary has gone through three editions and is probably the best of its kind. Why anyone should find need for stereotyped formulae in the treatment of diseases is beyond understanding. For those who must practice medicine under such circumstances this book will serve its purpose.

M. F. DEL.

PHYSIOLOGY OF PROTEIN METABOLISM.

PHYSIOLOGY OF PROTEIN METABOLISM. By E. P. Cathcart, M. D., D. Sc., F. R. S. New Edition. London and New York, Longmans, Green and Co., 1921. 176 pages. 8vo. \$4.25. (Monographs on Biochemistry).

This monograph offers a broad survey of the more recent researches in protein metabolism which will be found of value to physiologists because of its scope and orderly arrangement. It will also be of great interest to clinicians because of the utility of the principles for practical application in the interpretation of bedside conditions. It is written in simple language with a style that lends itself to easy reading and will make a valuable addition to the vast amount of literature on protein metabolism.

H. KOSTER.

DISEASES OF CHILDREN.

DISEASES OF CHILDREN. By Herman B. Sheffield, M. D. St. Louis, C. V. Mosby Company, 1921. 798 pages, with 238 illustrations. 8vo. Cloth, \$9.00.

Dr. Sheffield is to be congratulated on having written a book which is a distinct credit to the writer and a valuable addition to the literature on diseases of children.

The text is clearly written, explanations are lucid, the illustrations numerous and excellent and the type and impression attractive.

The author is definite in his treatment which is a welcome feature in contrast to the usual tendency of pediatric writers to be vague or laconic in this most important regard.

Other outstanding points in the book are chapters on laboratory diagnosis; on examination of children for deafness and on diseases of the ductless glands.

On the whole it would seem to be one of the best pediatric works which have appeared in recent years.

W. H. DONNELLY.

BOOKS RECEIVED.

Books received for review are acknowledged promptly in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases review notices will be promptly published shortly after acknowledgment of receipt has been made in this column.

PHYSICAL DIAGNOSIS. By W. D. Rose, M. D. Second Edition. St. Louis, C. V. Mosby Company, 1921. 736 pages, 309 illustrations. 8vo. Cloth, \$8.50.

TUBERCULOSIS AND HOW TO COMBAT IT; A BOOK FOR THE PATIENT. By Francis M. Pottenger, A. M., M. D., F. A. C. P. St. Louis, C. V. Mosby Company, 1921. 273 pages. 12mo. Cloth, \$2.00.

DISEASES OF CHILDREN. By Herman B. Sheffield, M. D. St. Louis, C. V. Mosby Company, 1921. 798 pages, with 238 illustrations. 8vo. Cloth, \$9.00.

THE SURGICAL CLINICS OF NORTH AMERICA. Volume 1, Number 2, April, 1921. (New York Number). 329 pages, with 115 illustrations. Published Bi-Monthly (Six numbers a year) by W. B. Saunders Co., Phila. & London. Paper, \$12.00 net; cloth, \$16.00 net.

OEDEMA AND NEPHRITIS. A Critical, Experimental and Clinical Study of the Physiology and pathology of Water Absorption in the Living Organism. By Martin H. Fischer, M. D. Third and enlarged edition. New York, John Wiley & Sons, Inc., 1921. 922 pages, illustrated. 8vo. Cloth, \$10.00.

GERMINATION IN ITS ELECTRICAL ASPECT. A Consecutive Account of the Electro-Physiological Processes Concerned in Evolution, from the Formation of the Pollen-Grain, to the Completed Structure of the Seedling. By A. E. Baines. New York. E. P. Dutton & Co., 1921. 185 pages, with 130 illustrations. 8vo. Cloth, \$6.00.

THE ORIGIN AND PROBLEM OF LIFE; A PSYCHO-PHYSIOLOGICAL STUDY. By A. E. Baines. New York, E. P. Dutton & Co., 1921. 97 pages, illustrated. 12mo. Cloth, \$1.60.

VITAMINES, ESSENTIAL FOOD FACTORS. By Benjamin Harrow, Ph. D. New York, E. P. Dutton & Co., 1921. 219 pages. 12mo. Cloth, \$2.50.

PSYCHOLOGY AND PSYCHOTHERAPY. By William Brown, M. A., M. D. New York, Longmans, Green & Co., 1921. 196 pages. 12mo. Cloth, \$3.00.

A GUIDE TO DISEASES OF THE NOSE AND THROAT AND THEIR TREATMENT. By Charles A. Parker, F. R. C. S., Edin., and Lionel Colledge, M. B., F. R. C. S. Second Edition. London, Edward Arnold, New York, Longmans, Green & Co., 1921. 583 pages, 241 illustrations. 8vo. Cloth, \$8.50.

MEDICINE FOR NURSES. By John Henderson, M. D. London, Edward Arnold, New York, Longmans, Green & Co., 1921. 263 pages. 12mo. Cloth, \$3.50.

ON BONE FORMATION, ITS RELATION TO TENSION AND PRESSURE. By Dr. Murk Jansen. Manchester, University Press, London & New York, Longmans, Green & Co., 1921. 114 pages. Plates. 8vo. Cloth, \$7.50.

A HANDBOOK OF SKIN DISEASES AND THEIR TREATMENT. By Arthur Whitfield, M. D., (Lond.), F. R. C. P. Second Revised Edition. London, Edward Arnold, New York, Longmans, Green & Co., 1921. 291 pages, 56 plates. 8vo. Cloth, \$6.00.

NUTRITION AND CLINICAL DIETETICS. By Herbert S. Carter, M. A., M. D. Paul E. Howe, M. A., Ph. D., Howard H. Mason, A. B., M. D. Second Edition thoroughly revised. Phila. and New York, Lea & Febiger, 1921. 703 pages. 8vo. Cloth, \$7.50.

THE EVOLUTION OF DISEASE. With a Discussion of the Immune Reactions Occurring in Infectious and Non-Infectious Diseases. By Prof. J. Danysz, Institut Pasteur, Paris. Translated by Francis M. Rackemann, M. D. Phila. & New York, Lea & Febiger, 1921. 194 pages, 12mo. Cloth, \$2.50.

INFECTIONS OF THE HAND. A Guide to the Surgical Treatment of Acute and Chronic Suppurative Processes in the Fingers, Hand, and Forearm. By Allen B. Kanavel, M. D. Fourth Edition thoroughly revised. Phila. and New York, Lea & Febiger, 1921. 500 pages, 185 illustrations. 8vo. Cloth, \$5.50.

PRACTICAL TREATISE ON DISEASES OF THE SKIN. By Oliver S. Ormsby, M. D. Second Edition, thoroughly revised. Phila. and New York, Lea & Febiger, 1921. 1166 pages, 445 illustrations, 4 plates. 8vo. Cloth, \$10.00.

BY-LAWS

of the

Associated Physicians of Long Island

By-Laws of the Associated Physicians of Long Island
Corrected to 1921

ARTICLE I.

Section 1. This Society shall be known as the Associated Physicians of Long Island. Its objects shall be those of a general and scientific medical society, the study of the natural conditions and prevalent diseases of Long Island and the promotion of the medical interests by the medical profession.

Section 2. Eligibility to membership shall be limited to practitioners on Long Island who are in good standing and who shall have been indorsed by the Membership Committee.

ARTICLE II.

Section 1. The officers of the Society shall be a President, four Vice-Presidents, one from each of the County Medical Societies of Long Island, a Secretary and a Treasurer. The officers, or nominees for office, shall be declared elected when they have received a majority of the votes at the Annual Meeting.

Section 2. There shall be a Board of Five Directors, consisting of the President, the retiring President, the First Vice-President, the Secretary and the Treasurer, respectively, by virtue of their several offices.

ARTICLE III.

Section 1. The following Standing Committees shall be appointed annually by the Chair: a Scientific Committee, a Membership Committee, a Legal Committee, a Historical Committee, a Committee on Public Health, a Committee on Humanics and an Entertainment Committee. There shall also be a committee of three appointed by the Chair and announced at the October Meeting to be known as the Auditing Committee whose duty shall be to audit the accounts of the Treasurer for the year in which they are appointed and who shall report at the next Annual Meeting. There shall also be a committee of three appointed by the Chair and announced at the October Meeting to be known as the Nominating Committee whose duty shall be to present nominations at the next Annual Meeting for the various offices; but any member present at the meeting may nominate from the floor.

Section 2. There may be such Temporary Committees appointed by the Chair as are deemed necessary by the Society, including additional members of the Entertainment Committee for each session.

ARTICLE IV.

Section 1. Stated Meetings shall be held three times a year, in June, October and January, respectively, the Annual Meeting to be held in Brooklyn in January, the June and October Meetings to be held at places to be selected by the Board of Directors. Special Meetings may be called by the President at the written request of five members.

Section 2. For scientific purposes a Quorum shall always be presumed. For Executive Business Twenty members shall be necessary.

ARTICLE V.

Section 1. The Duties of the Officers are explained in their titles. The Scientific Committee shall provide the Program and have charge of the Scientific Session. It shall be the duty of the Membership Committee to secure and recommend new members for the Society. The Legal Committee shall have charge of all legislative and legal matters of interest to the Profession of Long Island. The Historical Committee shall be composed of a member from each County Medical Society of Long Island and shall collect Historical Data of interest to the Profession of Long Island. The Committee on Public Health shall have charge of all matters pertaining to the Public Health, including public health lectures by members of the Association in the various towns and villages of Long Island, and its scope shall also include the natural features and endemic diseases of Long Island.

Section 2. The Committee on Publication shall consist of one, or more, members from each county of Long Island and shall be selected, annually, by the Board of Directors. One member of the Publication Committee shall be elected by the Committee as the Chairman. The Publication Committee shall Nominate Chief and Associate Editors of the Long Island Medical Journal, and shall submit the names of these nominees to the Board of Directors for confirmation. The President, Secretary and Treasurer of the Society and the Editor-in-Chief of the Long Island Medical Journal shall be, ex-officio, members of the Committee on Publication and shall be notified of all meetings of the Committee. The Publication Committee shall have charge of the Journal of the Association and shall publish in it the proceedings of the Association and the Scientific Papers read before the Association. They shall also issue a revised edition of the Manual of the Association after each Annual Meeting.

Section 3. Papers read at any of the meetings shall be the property of the Association.

Section 4. The Board of Directors shall meet at least once before each stated meeting and shall transact all business not otherwise provided for. The Board of Directors shall have power to appoint delegates to other medical bodies when in their discretion it is deemed expedient to do so. Should a vacancy occur in the Board of Directors it shall be filled by the remaining members of the said Board.

ARTICLE VI.

Section 1. New Members shall be admitted only upon the recommendation of the Membership Committee and by a two-thirds ballot of those present and voting at a regular meeting of the Association.

Section 2. Every applicant for membership shall sign the printed application blank and accompany the application with the current annual dues.

Section 3. The name of every applicant for membership shall be sent to all members at the time of sending notices of the meeting at which the application is to be acted upon.

Section 4. There shall be three Classes of Members, Active Members, Honorary Members and Emeritus Members. Active Members must receive a two-thirds vote of those present and voting at any regular meeting of the Society and are entitled to all privileges of the Society. Honorary Members must receive a unanimous vote of the Society at any regular meeting and are entitled to all privileges of the Society, except the privilege of voting at the meetings. Emeritus Members must receive a unanimous vote at any regular meeting of the Society and are entitled to all the privileges of the Society, except voting at the meetings. This last class was created for the benefit of our old and worthy members who feel the necessity of retiring from active membership.

ARTICLE VII.

The Regular Dues shall be determined at the Annual Meeting. Special assessments, not to exceed, in amount, the annual dues may be levied by a majority vote at any meeting.

ARTICLE VIII.

A member who is in arrears for two years' dues shall be dropped.

ARTICLE IX.

A member of the Legal Profession shall be appointed by the Board of Directors as Honorary Counsel.

ARTICLE X.

The following shall be the Order of Business for the June and October Meetings:

- Reading of the Minutes.
- Report of the Membership Committee
- Reports of Other Committees
- Unfinished Business
- New Business
- Scientific Session
- Adjournment

ARTICLE XI.

The following shall be the order of business for the Annual Meeting:

- Reading of the Minutes
- Report of the Membership Committee
- Reports of other Committees
- Report of Secretary
- Report of Treasurer
- Unfinished Business

New Business
 Election of Officers
 Scientific Session
 Installation of Officers
 Adjournment

ARTICLE XII.

Section 1. Amendments to the By-Laws may be adopted at any Regular Meeting, provided that they have been proposed, in writing, at a previous meeting and receive a two-thirds ballot of the members present and voting.

Section 2. At any regular meeting a By-Law may be Suspended for a specific time by a unanimous vote.

Roster of the Associated Physicians of Long Island

Corrected to August 1, 1921

- | | |
|--|--|
| Abbott, Royal Albert.....856 Park Place | Baldwin, Joseph S.....493 Classon Avenue |
| Abbott, William Henry....1242 Pacific Street | Baldwin, L. Grant....20 Schermerhorn Street |
| Ackerman, Stephen Hubert.Fort Mott, N. J. | Ball, William E.....564 Decatur Street |
| Adams, Henry Frederick..32 Palmetto Street | Banowitz, Morris M.....183 Pulaski Street |
| Addoms, Lewis Paddock..221 Hancock Street | Barber, Calvin F....57 South Oxford Street |
| Adler, Nathan H.....480 Quincy Street | Barber, Robert Forrest....1140 Dean Street |
| Adlerman, Theodore Davis | Barber, Vincent.....269 Arlington Avenue |
| 696 St. Marks Avenue | Barbour, Nejib.....136 State Street |
| Ager, Louis Curtis.....137 Clinton Street | Barnes, Harold Ludlow..269 Jamaica Avenue |
| Allen, Herbert Coleman....171 Lefferts Place | Bartley, Elias H..65 South Portland Avenue |
| Allen, William Thomas | Bartley S. Potter |
| 493 Washington Avenue | 65 South Portland Avenue |
| Anderson, Alexander L....467 Ninth Street | Bartruff, George L....473 Evergreen Avenue |
| Anderson, Charles A.....252 Garfield Place | Bauer, John Leopold...984 Bushwick Avenue |
| Anderson, Herbert C.....386 Clinton Street | Baumann, William Joseph |
| Anderson, John Jerome..454a Green Avenue | 120 Dikeman Street |
| Anderson, Lewis Nostrand..1133 Dean Street | Bayles, Havens Brewster.125 Seventh Avenue |
| Andresen, Albert Fred'ck Ruger | Beach, Ralph Munson....502 Eighth Avenue |
| 88 Sixth Avenue | Bean, Arthur Sanders....34 Jefferson Avenue |
| Andrew, James H.....163 Hancock Street | Beasley, Crawford D....702 Greene Avenue |
| Apfel, Harry.....327 Pennsylvania Avenue | Beatty, George E., Jr....130 Avenue C West |
| Arrowsmith, Hubert.....170 Clinton Street | Beatty, George Wesley..204 Hancock Street |
| Aten, William H.....17 Gates Avenue | Bedford, Edwin Rapalje....1142 Dean Street |
| Adair, George F. | Beers, Nathan Thomas....97 Gates Avenue |
| 299 Earle Avenue, Lynbrook, N. Y. | Beery, Edwin N.....118 Gates Avenue |
| Adams, Robert A.....Whitestone, N. Y. | Beinfeld, Henry Harold |
| Allison, Benjamin R.....Lawrence, N. Y. | 876 Eastern Parkway |
| Ambler, Alfred S.....College Point, N. Y. | Bell, Alfred.....559 Decatur Street |
| Ames, James S.....Babylon, N. Y. | Bell, Harold Kennedy....857 President Street |
| Andrews, Benjamin Clark.....Islip, N. Y. | Bell, Henry Edwin.....859 Sterling Place |
| Bacon, Charles B. | Bell, Robert J.....38 Eighth Avenue |
| Blackwell's Island N. Y. City, N. Y. | Bellows, Charles M...433 Nostrand Avenue |
| Bailey, Fred De Forest...260 Hancock Street | Benoit, H. Wright.....520 Nostrand Avenue |
| Bailey, John Henry.....694 Greene Avenue | Berendsohn, William A..596 Carlton Avenue |
| Baketel, H. Sheridan | Berlenbach, Philip Henry |
| 198 South Oxford Street | 9 Stuyvestant Avenue |
| "Brooklyn" is to be understood when not | Bermingham, Francis Henry |
| otherwise indicated. | 120 Montague Street. |
| | Berstein, Benjamin M..183 Kingston Avenue |
| | Berry, Chas. White..572 Forty-seventh Street |
| | Bierbauer, Bruno W.....47 Pierrepont Street |

- Blackman, William W....519 Clinton Avenue
 Blackmar, Bruce G.....331 Ovington Avenue
 Blackstone, B. B. S.....174 Leonard Street
 Blair, Howard Thomas...275 Fenimore Street
 Blaisdell, Silas C.....331 Jefferson Avenue
 Blank, Juilius Martin.....413 Clinton Street
 Blatt, Meyer Harold....72 McKibbin Street
 Blatteis, Simon R.....350 New York Avenue
 Bliss, Robert Franklin.....834 Union Street
 Block, Siegfried.....502 Washington Avenue
 Bodkin, Martin L.....290 Clinton Avenue
 Boehm, Julius B.....208 Jefferson Avenue
 Bogardus, Clifton.....539 Fifty Third Street
 Bogart, Arthur H.....27 Seventh Avenue
 Bonner, Adolph.....421 Grand Avenue
 Bornmann, Alfred.....438 Greene Avenue
 Bowmar, Thomas L.....866 Sterling Avenue
 Boyd, James Raymond....891 Sterling Place
 Bozenhardt, William Frederick
 50 Forest Avenue
 Bradner, Frank W.....82 Saratoga Avenue
 Bradner, Morris Renfrew....Warwick, N. Y.
 Braislin, William C.....425 Clinton Avenue
 Brennan, Thomas Matthew....82 Sixth Ave.
 Brennen, Frank F. Brennen....1081 Park Pl.
 Brinckernoff, Walter J.
 180 Willoughby Avenue
 Brinsmade, William Barrett
 172 Clinton Street
 Brockway, Robert Ormiston.67 Hanson Place
 Broughton, Luke D.....304 Lewis Avenue
 Brown, Charles A.....155 Halsey Street
 Brown, Francis X.
 8217 Twenty-second Avenue
 Brown, Samuel S.....274 Hancock Street
 Brown, Thomas E.....278 Clinton Street
 Browning, William.....54 Lefferts Place
 Brundage, Albert Harrison.365 Gates Avenue
 Bruning, Henry Frederick
 467 Seventy-fifth Street
 Brush, Arthur C...29 South Portland Avenue
 Bryn, Harold.....313 Union Street
 Bucalo, Harry D.....164 Suydom Street
 Buist, George Lamb.....3 Hancock Street
 Burford, Mortimer G....522 Bedford Avenue
 Burger, Francis J.....41 Buffalo Avenue
 Burkard, George.....1516 Greene Avenue
 Burnham, Clark.....182 Clinton Street
 Butler, Glentworth Reeve..226 Gates Avenue
 Butler, William E.
 41 Park Row, New York, N. Y.
 Buys, Thomas A.....1402 Dean Street
 Byington, Roderick
 1851 Eighty Fourth Street
 Baetz, Walter G.
 Hatch Avenue and Fulton Street, Woodhaven,
 N. Y.
 Baker, Alfred Edwin
 8758 116th Street, Richmond Hill, N. Y.
 Baker, William A.....Islip, N. Y.
 Baker, Herbert L.....Woodside, N. Y.
 Barnes, Irving F.....Oyster Bay, N. Y.
 Barnhardt, William Newton
 Central Islip, N. Y.
 Barry, John Henry R.
 153 Eleventh Street., Long Island City, N.Y.
 Baum, Joseph
 1316 Sheridan Boulevard, Far Rockaway
 Bell, Albert M.....Sea Cliff, N. Y.
 Benjamin, Frank Everett...Riverhead, N. Y.
 Bergen, Pierron Willets
 494 2nd Avenue, Long Island City, N. Y.
 Biegeleisen, Joseph Z.
 South and Wycoff Streets, Jamaica, N. Y.
 Biffar, Harry Melchior
 220 Fourteenth Street, College Point, N. Y.
 Boettinger, Carl
 Queens Plaza Court, Long Island City
 Bogart, Joseph H.....Roslyn, N. Y.
 Bonime, Ellis.....Forest Hills, N. Y.
 Boorum, Hartley E...Rockville Centre, N. Y.
 Borland, Harry L.....Lynbrook, N. Y.
 Both, John Lawrence.....Edgemre, N. Y.
 Braun, Jacob Kew Gardens, N. Y.
 Bray, Dallas G.
 451 Grand Avenue, Astoria, N. Y.
 Breed, Daniel Perkins
 Douglas Manor, Douglaston, N. Y.
 Brennan, Francis E.
 256 Barclay Street, Flushing, N. Y.
 Brush, Samuel Pierson
 74 Union Avenue, Jamaica, N. Y.
 Burns, Geoffrey Charles Henry
 Central Islip, N. Y.
 Burns, James E.....Glen Cove, N. Y.
 Buxbaum, Edward J.
 317 Hillside Avenue, Jamaica, N. Y.
 Bunnell, Chester William
 53 Clinton Avenue, Jamaica, N. Y.
 Cahill, John Joseph...470 Fifty First Street
 Campbell, Charles A.....979 Lorimer Street
 Campbell, Walter J.....384 Union Street
 Campbell, William Francis
 394 Clinton Avenue
 Candidus, Eugene William
 770 St. Marks Avenue
 Cardona, John Lawrence
 804 Lafayette Avenue
 Carey, John J.....287 Hoyt Street
 Carmel, Benjamin E.....46 Boerum Street
 Cary, William Hallenbeck
 168 Clinton Street
 Catlin, Arnold Wells.....207 Greene Avenue
 Cestare, Anthony.....208 Sands Street
 Chapin, Edward.....21 Schermerhorn Street
 Chaplain, Frank S.....776 East 18th Street
 Chapman, William Lewis
 114 Lafayette Avenue
 Chase, Carroll.....1170 Dean Street
 Child, Augustus Louis...424 Hancock Street
 Clark, Frank H.....758 Putnam Avenue
 Clark, George Armon.....407 Ninth Street
 Clark, Raymond.....310 Clinton Avenue
 Clark, Seymour G.....7 Linden Avenue
 Clark, Tracy E.....85 Halsey Street
 Cobb, James Livingston, 616 Nostrand Avenue
 Cohen, Louis Lippmann.760 Bushwick Avenue
 Cole, Chester Winfield....128 Halsey Street
 Colgan, John J.....191 Nassau Street
 Collins, John J.....1349 Dean Street
 Colson, John D.....115 Park Avenue
 Comstock, Albert.....795 Ocean Avenue
 Connor, Maurice E.....1320 Carroll Street
 Coogan, William Joseph..206 Greene Avenue
 Cooley, James Allen.....46 Fourth Avenue
 Coney, Paris Vance.....186 Quincy Street

- Corcoran, David
Brooklyn State Hospital, Brooklyn, N. Y.
- Cornelius, La Willa Mott
1433 Fifty Fifth Street
- Cornwall, Edward E.....1218 Pacific Street
- Cosgrove, James Edward
1269 Fifty Eighth Street
- Coughlin, Robert Emmet
428 Forty Seventh Street
- Cox, Charles N.....257 Jefferson Avenue
- Crane, Claude Granville.121 St. James Place
- Cross, Frank Bethel....832 President Street
- Carman, Edwin.....Freeport, N. Y.
- Carter, G. Herbert.....Huntington, N. Y.
- Casselberry, John Logan
1213 Hatch Avenue, Richmond Hill, N. Y.
- Chalmers, Thomas Clark
88 Continental Avenue Forest Hills, N. Y.
- Chamberlin, W. Taylor
125 Washington Street, Hempstead, N. Y.
- Child, Frank S.....Port Jefferson, N. Y.
- Clark, Charles Edward.....Hewletts, N. Y.
- Clarke, Louis Vincent
69 Mott Avenue, Far Rockaway, N. Y.
- Cocke, William Irby..Port Washington, N. Y.
- Cohen, L. Broderick
189 Boulevard, Mineola, N. Y.
- Combes, Abbott Carson
20 Elmhurst Avenue, Elmhurst, N. Y.
- Cambes, Abbot Carson, Jr.
154 25th Street, Elmhurst, N. Y.
- Comes, J. deRaismes
Wilson and Barclay Streets, Flushing, N. Y.
- Combes, Smith A.....Hempstead, N. Y.
- Connolly, Joseph Bartholomew
Glen Cove, N. Y.
- Cook, William H
2402 Silver Street, Ridgewood, N. Y.
- Cooke, Tyler Gibson
827 Stoothoff Avenue, Richmond Hill
- Cooley, James Seth
Mineola, N. Y. (Emeritus)
- Corwith, Silas R.....Bellport, N. Y.
- Courten, Henry C.
923 Church Street, Richmond Hill, N. Y.
- Cox, Chester L.....Locust Valley, N. Y.
- Crawford, James J.
311 Gama Place, Glendale, N. Y.
- Cringle, Edward J.....Huntington, N. Y.
- D'Albora, John B.....174 Clinton Avenue
- Dalton, Eugene Smith
333 East Seventeenth Street
- Dangler, Henry William.455 Classon Avenue
- Dattlebaum, Maurice J....345 Stone Avenue
- Davis, William Henry
Millerton, Dutchess Co., N. Y.
- Deely, George Edward...132 Montague Street
- De Forest, Henry Pelouze
71 Central Park, West New York, N. Y.
- Delatour, H. Beeckman....73 Eighth Avenue
- De Lorme, Marrett F.....61 Green Avenue
- De Waltoff, Dayve..451 Forty Seventh Street
- Dexter, Thurston Hopkins.411 Hancock Street
- De Yoanna, Gaetano...111 Pierrepont Street
- Dickert, John G.....928 Bushwick Avenue
- Dixon, Herbert S.....141 Lewis Avenue
- Dobkin, Nicholas.....182 Vernon Avenue
- Dorney, Edward R.....309 Eleventh Street
- Dougherty, John E.....Address Unknown
- Dowd, James B.
4201 Fort Hamilton Parkway
- Downey, James Maurice...381 Clinton Street
- Doyle, George J.....287 Clermont Avenue
- Driscoll, Joseph Alexander
171 Washington Park
- Du Cret, Herbert Sperry
169 New York Avenue
- Duffield, Warren L.....119 Berkeley Place
- Duggan, Homer V.....1253 Bergen Street
- Duncan, Cameron.....462 Ocean Avenue
- Durham, Roger.....322 Park Place
- Durkee, John W.....142 Clinton Street
- Durkin, William J.....2353 Foster Avenue
- Durning, Charles Francis
2101 Voorhees Avenue
- Durrin, William C.....1215 Dean Street
- Duryea, Chester Ford....784 Carroll Street
- Dusseldorf, Louis M.....392 Union Street
- Davis, A. J.....Hicksville, N. Y.
- Davis, Milton Burr.....Patchogue, N. Y.
- de Graffenried, Anthony Foster
Lawrence B'lyd. and 3rd Street, Bayside
- De Lano, Frank T....Rockville Center, N. Y.
- De Nyse, Percy Lott
9104 Lefferts avenue, Richmond Hill, N. Y.
- Derby, Richard.....Oyster Bay, N. Y.
- Dick, John F.
227 Sanford Avenue, Flushing, N. Y.
- Dold, William Elliott
River Crest, Astoria, N. Y.
- Donohue, John F.....Oyster Bay, N. Y.
- Dooman D. Stoddard
Garden City Hotel, Garden City, N. Y.
- Dow, Horace D.....Maspeth, N. Y.
- Dowsey, George H.....Great Neck, N. Y.
- Duffy, George V.
1518 Woodhaven Boulevard, Woodhaven,
N. Y.
- Duggan, Edward F....Valley Stream, N. Y.
- Durrand, A. Walter
61 Broadway, New York, N. Y.
- Eastman, Frederick C....1268 Bergen Street
- Eastmond, Charles...483 Washington Avenue
- Ehrhardt, Charles F.....146 Maple Street
- Eichacker, Henry Charles
2355 Putnam Avenue
- Eichacker, Henry Frederick
716 Seneca Avenue
- Emery, Z. Taylor
66 Broadway, New York, N. Y.
- Enger, Anton.....169 Clinton Street
- Ennis, William Murray.....31 First Place
- Erdmann, Adolph F.....458 Ninth Street
- Estabrook, C. R.....9408 Flatlands Avenue
- Edwards, David.....Easthampton, N. Y.
- Elliott, Robert M.
Willard State Hospital, Willard, N. Y.
- Ellis, Hubert
Lyon Avenue and McIntosh St. E. Elmhurst
- Fairbairn, Henry Arnold
249 McDonough Street
- Ferguson, Francis C..560 Fifty Eighth Street

Fett, Herbert C.....1140 Dean Street
 Fettes, David Stewart.....1400 Avenue P
 Fielding, George Bennett...452 Ninth Street
 Figueira, Mathias.....14 Stuyvesant Avenue
 Finch, William Young.124 St. Marks Avenue
 Fisher, Charles Mackall

317 Ovington Avenue
 Fisher, George Garthwaite

271 New York Avenue
 Fisher, Lamont H.....1112 Dean Street
 Fisher, Louis.....132 Pennsylvania Avenue
 Fiske, Edwin Howe..152 Lafayette Avenue
 Fiske, E. Rodney.....1172 Dean Street
 Fitzsimmons, James Cleland

240 Berkley Place
 Flannery, William J...238 Arlington Avenue
 Fleming, James W.....1246 Dean Street
 Fogarty, Thomas Louis

9 Prospect Park, West
 Fowler, Royale Hamilton

280 Jefferson Avenue
 Fowler, Russel Story...301 De Kalb Avenue
 Franciscus, Henry....718 Bushwick Avenue
 Freeman, William Hazen

263 Arlington Avenue
 French, Thomas Rushmore

150 Joralemon Street
 Frischbier, Otto.....690 Bushwick Avenue
 Fuhs, Jacob.....871 Park Place
 Funk, Merton Layton....1626 Foster Avenue

Fechtig, Allen A.

21817 Langdon Street, Queens, N. Y.
 Fensterer, Gustav A.....Floral Park, N. Y.
 Field, C. Everett

742 Lefferts Avenue, Richmond Hill, N. Y.
 Finch, Frederick Arlington

Stony Brook, N. Y. (Emeritus)
 Fincke, Harry Stark

655 Academy Street, Astoria, N. Y.
 Fischer, Henry Archbold

25 Bergen Avenue, Jamaica, N. Y.
 Flanagan, William J.

4676 Beaufort Avenue, Richmond Hill, N.Y.
 Flemming, Edward A

213 113th Street, Richmond Hill, N. Y.
 Fletcher, Frederick W.....Freeport, N. Y.

Fobes, Joseph Henry
 1 West Sixty Eighth Street, New York, N.Y.

Forst, John A.....Farmingdale, N. Y.
 Foster, J. Mansfield....Valley Stream, N. Y.

Foster, W. E.....Babylon, N. Y.
 Freitag, John Daniel, Jr.

8656 105th Street, Richmond Hill, N. Y.
 Frey, Walter G.

205 Grand Avenue, Astoria, N. Y.
 Frothingham, Edward....Cannonsville, N. Y.

Galloway, F. Maxwell....156 Windsor Place
 Gardiner, Charles Edward

59 Schermerhorn Street
 Gardner, Willis Morton....85 Halsey Street

Garlick, Ralph H...478 Seventy Fifth Street
 Geis, Norman Philip.....1325 Pacific Street

Genthner, Philip J.....96 Sixth Avenue
 Giantieri, Victor.....163 Washington Park

Gibson, Gordon.....176 State Street
 Gildersleeve, Donald Maurice

E. W. Bliss Co., Foot Fifty Third Street

Gildersleeve, John Andrew

7325 Fourteenth Avenue
 Gilligan, Alexander....404 Franklin Avenue

Gilmartin, Albert Edward.570 Leonard Street
 Giovinco, Calogero...795 Bushwick Avenue

Gissel, Henry William..6901 Ridge Boulevard
 Gissler, Edwin Fred.....32 Cedar Street

Given, James B.....463 Ninth Street
 Glynn, James P.....474 Ninth Street

Goetsch, Emil.....2 Sidney Place
 Goodfellow, Eugene H.

5708 Fourteenth Avenue
 Goodrich, Charles H.....280 Park Place

Gordon, Charles Albert..847 Putnam Avenue
 Gordon, Murray Burns..4402 Twelfth Avenue

Gordon, Onslow Allen.....71 Halsey Street
 Gordon, Onslow Allen, Jr..71 Halsey Street

Goubeaud, Henry J.....287 Sterling Place
 Graham, Henry Flack.....474 First Street

Graham, John Cooper
 340 Seventy Third Street

Grant, Walter Scott..378 McDonough Street
 Gray, Irving.....204 Eighth Avenue

Gray, R. C.....394a Lafayette Avenue
 Gray, Robert Howe.....67 Hanson Place

Greeley, Horace.....140 Clinton Street
 Green, Edward Everett

456 Washington Avenue
 Green, Samuel William....161 Clinton Street

Griffin, Edwin Albert...165 Hancock Street
 Griffin, John.....45 Lefferts Place

Griswold, William Church
 76 Prospect Park, West

Garvin, William C.....Kings Park, N. Y.
 Gibson, Horatio Gates, Jr.

Central Islip, N. Y.
 Gibson, William B.....Huntington, N. Y.

Goldberg, Abraham..7516 Boulevard Arverne
 Goodwin, Norman Charles

11618 9 Ave., Richmond Hill, N. Y.
 Grimmer, Roy Duell.....Hempstead, N. Y.

Geyser, Albert Charles....Huntington, N. Y.

Hagan, Cornelius Edward

461 Ridgewood Avenue
 Hall, Gordon R.....164 Clinton Street

Hall, Ralph William..465 Fourteenth Street
 Hall, Robert Wellington

750 East Eighteenth Street
 Hamlin, Cyrus.....1252 Pacific Street

Hamlin, George D.....1259 Pacific Street
 Hancock, James Cole...135 Cambridge Place

Hangarter, Andrew Henry..168 Stagg Street
 Hansen, Anthony Hans

1830 Eighty Fourth Street
 Hargitt, Charles A...17 Schermerhorn Street

Harman, Eugene Paul..563 St. Marks Avenue
 Harrington, Burt D.....525 Ocean Avenue

Harris, Burton.....516 Nostrand Avenue
 Harris, Isham G.

Brooklyn State Hospital, Brooklyn, N. Y.
 Hartung, Emil F.....358 Marion Street

Hatfield, Richard Henry..1489 Union Street
 Haupt, William Carl.....979 Lorimer Street

Heeve, William Lewis...138 Hancock Street
 Henry, Morris Walgrove

2589 Bedford Avenue
 Herbert, William.....778 Putnam Avenue

Hermann, Solomon..4903 Fourteenth Avenue
 Herriman, Frank Richard
 50 East Forty Second Street, New York,
 N. Y.

Herriman, Rudolph F.
 1075 Bushwick Avenue

Herrity, George F.....601 Park Place
 Hetrick, J. A. V.....717 E. Parkway

Heuser, Gerard William.1050 Hancock Street
 Heymann, Isaac Pickard

76 Lafayette Avenue
 Hicks, Edward E.....1168 Dean Street

Higgins, Thomas Vincent
 982 Bedford Avenue

Hills, Rollin.....231 Seventy Seventh Street
 Hilin, Alexander.....685 Willoughby Avenue

Holden, Frederick C.....198 Lincoln Place
 Hopper, Magnus Tate

379 Washington Avenue
 Horni, John.....447 Nostrand Avenue

Howard, Tasker.....46 Sidney Place
 Howe, Alexander C..40 South Oxford Street

Hoxsie, Edward Hazard.159 Hancock Street
 Hubbard, William Stimpson

1138 Bergen Street
 Buffman, Otto V.

771 Madison Avenue New York, N. Y.
 Hull, Thomas H.....87 Lee Avenue

Hulse, Clarence H.....83 Norman Avenue
 Humpstone, O. Paul..327 Washington Avenue

Hunter, G. H. V.....67 Hanson Place
 Hyde, Clarence Reginald...242 Henry Street

Hynes, Edward G.....80 Ocean Boulevard

Hadley, William Wallace....Sea Cliff, N. Y.
 Hala, William Wendell

660 Academy Street, Long Island City, N.Y.
 Halliman, Joseph Daniel

29 Lefferts Avenue Richmond Hill, N. Y.
 Halsey, Hugh.....Southampton, N. Y.

Halsey, James L.....Islip, N. Y.
 Harrison, Daniel A.....Whitestone, N. Y.

Hatton, Frederick C
 Wicks Street, Morris Park, N. Y.

Hawkes, Forbes
 124 East Sixty Fifth Street, New York,
 N. Y.

Hendersen, Alton Sanford
 Huntington, N. Y.

Hewlett, Harold E.....Babylon, N. Y.
 Heyman, Marcus B.

Ward's Island, New York, N. Y.
 Hieber, George Matthew

4 Washington Avenue, Richmond Hill, N. Y.
 Higgins, Aaron L....Rockville Center, N. Y.

Holcomb, Henry V.....Freeport, N. Y.
 Hoole, Lester Page.....Quogue, N. Y.

Houghton, Harris A.
 97 Riverside Drive, New York, N. Y.

Howard, James Gilbert
 17 Bass Avenue, South Ozone Park, N. Y.

Hulse, William A.....Bay Shore, N. Y.
 Hulst, Francis A.....Sayville, N. Y.

Humphreys, George H.
 46 Jeffrey Avenue, Jamaica, N. Y.

Hutcheson, J. Ensor.Rockville Center, N. Y.
 Hutcheson, Robert F.....Cedarhurst, N. Y.

Hyland, Edward J.
 186 Shelton Avenue, Jamaica, N. Y.

Iler, George Hills.....169 Hancock Street
 Ingalls, James W....328 Stuyvestant Avenue
 Ives, Robert F.....962 Ocean Avenue

Jacobson, Arthur Clarence
 115 Johnson Street

Jameson, P. Chalmers.139 Montague Street
 Janson, Christian.....978 Bushwick Avenue

Jennings, Frank Dormer
 1083 Bushwick Avenue

Jennings, John Edward
 23 South Portland Avenue

Jewett, Frederick A.....282 Hancock Street
 Jewett, William Averill

380 Vanderbilt Avenue
 Joachim, Henry.....871 Park Place

Johnston, Charles L.....232 Hancock Street
 Johnston, Evan Melrose.61 Richmond Street

Johnston, Reuben Thomas
 615 Eastern Parkway

Judd, Albert Martin.....375 Grand Avenue

Jackman, Luther Taylor...Huntington, N. Y.
 Jaques, Arthur D.....Lynbrook, N. Y.

Jenner, William Edward
 229 Elm Street, Richmond Hill, N. Y.

Jessup, William H.
 Cornwell Avenue, Hollis, N. Y.

Jessup, Everett Colgate.....Roslyn, N. Y.

Kalvin, Henry M.....919 Avenue J.
 Kandt, Hartwig.....2209 Clarendon Road

Kasper, Gerard.....88 Bainbridge Street
 Katzenbogen, Arthur Saul

1064 East Seventh Street
 Keenan, Albert J.....251 New York Avenue

Keil, Peter Augustus..164 Arlington Avenue
 Kemp, Henry William...2442 Cornelia Street

Kene, Joseph A.....64 Greene Avenue
 Kenna, Richard J.....105 Reid Avenue

Kennedy, Edward V..75 Mc Donough Street
 Kennedy, James Charles

762 Willoughby Avenue
 Kerr, Le Grand.....462 Clinton Avenue

Kessler, George L.....1119 Bergen Street
 Ketcham, George F.....378 Adelphi Street

Kevin, J. Richard.....252 Gates Avenue
 Keyes, Frank Perkins...83 Hanson Place

Keyes, James J.....226 Seventeenth Street
 King, Samuel T.....319 Carlton Avenue

Kinloch, Robert Ernest..222 Hancock Street
 Kinne, William.....48 Fourth Avenue

Knoller, M. Malcolm:244 Schermerhorn Street
 Knother, Adolph Frederick

184 Ridgewood Avenue

Kane, Julius Theodore
 9 Smith Street, Jamaica, N. Y.

Keays, Frederick L.....Great Neck, N. Y.
 Keet, Ernest Ellsworth

70 Bergen Avenue, Jamaica, N. Y.
 Kerby, Walter Harold

526 Woodland Avenue, Woodhaven, N. Y.
 Kerrigan, James A.....Hempstead, N. Y.

Kittell, Martin M.
 101 Herriman Avenue, Jamaica, N. Y.

Krauss, John George
 95 Grand Street, Elmhurst, N. Y.

Kinch, Charles A.....Central Islip, N. Y.
 Kortright, W. P.....Huntington, N. Y.

Lange, Hugo.....1245 Dean Street
Langworthy, Howard T.
480 Franklin Avenue
Lasher, Frank Hermance..1127 Dean Street
Lawrence, Andrew Wilson
278 Jefferson Avenue
Laws, Carl Henry.....61 Pierrepont Street
Lazarus, George F.....2105 Caton Avenue
Leahy, Sylvester R.....151 Clinton Street
Le Fevre, Caroline Hurd
647 St. Marks Avenue
Leiter, Joseph G...598 Mc Donough Street
Lewis, Maurice Thomas
404 Fifty Fifth Street
Licht, Louis Frederick....565 Forest Avenue
Lincoln, Harry Warren..113 Hancock Street
Linder, William.....889 St. Marks Avenue
Lindridge, Edwin F....260 De Kalb Avenue
Lintz, William.....1352 Carroll Street
Lippold, William Edward
221 St. Nicholas Avenue
Little, George F.....469 Clinton Avenue
Lloyd, Ralph Irving.....450 Ninth Street
Lloyd, Thomas Mortimer..118 Remsen Street
Long, John Hathaway....110 Gates Avenue
Longmore, John A.....158 Clinton Street
Longo, Thomas Joseph.....54 Union Street
Lordi, George Hector.....26 First Place
Louria, Leon.....249 Hewes Street
Love, Cornelius R.....167 Clinton Street
Love, William Lathrop...857 Lincoln Place
Ludlum, Walter D....362 Marlborough Road
Lundbeck, Charles J.....107 Bergen Street
Lynch, Leo A.....212 Brooklyn Avenue

Lancer, Thomas F.
457 West 163rd Street, New York, N. Y.
Leale, Medwin.....Glen Cove, N. Y.
Lehman, Max
161 Halleck Avenue, Glendale, N. Y.
Lewis, David R.....Whitestone, N. Y.
Lindsay, Walter.....Huntington, N. Y.
Linnehan, George A.
171 Shelton Avenue, Jamaica, N. Y.
Lonson, Kenneth Kenyon
688 97th Street, Woodhaven, N. Y.
Loper, Arthur C.....Greenport, N. Y.
Louis, William I.
8643 104th Street, Richmond Hill, N. Y.
Lowsley, Augustus S.
214 Madison Avenue, Flushing, N. Y.
Luce, Charles A.....Amityville, N. Y.
Ludlum, Charles H.....Hempstead, N. Y.

Mc Aveney, William Joseph
134 Second Place
Mc Cammon, Frederick J., 167 Hancock Street
Mc Chesney, Herman Franklin
1188 Dean Street
Mc Clelland, Lefferts A.
78 Mc Donough Street
Mc Entee, Edward James.196 Hancock Street
Mc Goldrick, Edward Vincent
115 Russell Street
Mc Kenna, Donald Esterbrook
73 Hanson Place
Mc Kenna, William Francis
125 Gates Avenue
Mc Leod, John A.....160 Noble Street

Mc Namara, Sylvester James
369 Union Street
Mc Quillin, John Parker
353 Seventy Fifth Street
Mac Coy Cecil.....184 Joralemon Street
Mac Evitt, James M.....514 Ninth Street
Mac Evitt, John Cowell....1144 Dean Street
Mac Naughton, Donald Stuart
50 Gates Avenue
Macumber, John L.....291 De Kalb Avenue
Maddren, Russell F.
105 East Nineteenth Street, New York,
N. Y.
Maggio, Benjamin Fassulo
691 Bushwick Avenue
Mahnken, Henry Charles...400 Hancock Street
Mahr, George J.....98 Wilson Street
Malament, Menassah John.197 Carroll Street
Malone, Joseph W.....8732 Bay Parkway
Menecke, Philipp.....1058 Bushwick Avenue
Mangan, Daniel Clarence....95 Park Avenue
Manley, Mark.....261 Monroe Street
Manning, Charles Edward
480 Putnam Avenue
Matheson, A. Ross
St. Johns Place and Seventh Avenue
Matthews, Harvey Burleson
643 St. Marks Avenue
Mausert, Gustav Adolph...67 Hanson Place
Mayes, Herry Welday.....494 First Street
Mayne, Earl H....139 Bay Seventeenth Street
Meagher, John F. W.....92 Gates Avenue
Meara, James A....101 South Oxford Street
Meeks, Frederick R....100 Hancock Street
Menasse, Joseph Phineas..592 Henry Street
Merrill, George Adams....816 Ocean Avenue
Meury, John Bertrand..785 Bushwick Avenue
Meyer, Johanes.....2038 Fulton Street
Mills, Henry M.....902 President Street
Minton, Henry B....165 Joralemon Street
Mock, Johann Wilhelm..328 Central Avenue
Moitrier, William.....454 Putnam Avenue
Moitrier, William, Jr....454 Putnam Avenue
Monaghan, Frank J...1069 Bushwick Avenue
Mooney, Patrick J.....132 Kent Street
Moore, Joseph Lester..36 Pierrepont Avenue
Moore, Samuel Edward..1332 Myrtle Avenue
Moorhead, Robert L....185 Hancock Street
Morgenthaler, Herbert Jacob William
911 Bedford Avenue
Morris, Harold Arthur....350 Ocean Avenue
Morrison, Robert J.....1175 Dean Street
Morton, Henry H...32 Schermerhorn Street
Morton, Lawrence J.
Fort Hamilton Parkway and 88th Street
Moses, Henry Monroe
108 Prospect Park, West
Moskowitz, Samuel N.....131 Java Street
Mueller, Carl.....743 Bushwick Avenue
Murray, Archibald
Hoagland Laboratory, Brooklyn, N. Y.
Murray, Foster.....951 President Street
Murray, Patrick J.....478 Classon Avenue
Myerle, David.....80 Willoughby Street
Mc Carthy, Timothy F.
5 Ray Street, Jamaica, N. Y.
Mc Crea, Frederick L..Rockville Center, N. Y.

Mc Mahon, Dennis Edward
61 Whitney Avenue, Elmhurst, N. Y.

Mac Clymont, Dewitt Clinton
Northport, N. Y.

Mac Farland, Ralph L.
53 Clinton Avenue, Jamaica, N. Y.

Mac Ivor, James.....Port Jefferson, N. Y.

Mac Lean, Burge P.....Huntington, N. Y.

Malcolm, William J.....Jericho, N. Y.

Mann, John.....Old Westbury, N. Y.

Markham, Convas L.....Amityville, N. Y.

Marshall, Joseph H.....Southold, N. Y.

Marshall, Samuel A.
327 Jamaica Avenue, Long Island City, N. Y.

Martin, Arthur Chalmers J
80 Lennox Road, Rockville Center, N. Y.

Mencken, H. P.
91 Newton Avenue, Astoria, N. Y.

Meynen, George Kissam
43 Clinton Avenue, Jamaica, N. Y.

Miles, Clarence C.....Greenport, N. Y.

Moore, Edwin Syme.....Bay Shore, N. Y.

Morrissey, Joseph L.
63 Lamont Avenue, Elmhurst, N. Y.

Moss, L. Howard
114th Street and 86th Avenue., Richmond
Hill, N. Y.

Mulcahy, William L.
3 Carnaga Avenue, Far Rockaway, N. Y.

Murphy, Charles C.....Amityville, N. Y.

Napier, Charles Dwight.100 Lafayette Avenue

Nash, Philip Ingram....524 Neptune Avenue

Nichols, Carroll Leja....230 Hancock Street

Nichols, Louis Lee....386 Stuyvesant Avenue

North, Nelson L.....150 Hancock Street

Northridge, Augustus Pearce
87 Halsey Street

Novelli, Joseph A.....1011 Halsey Street

Newman, Leander A.
190 Main Street, Port Washington, N. Y.

Niesley, Charles M.....Manhasset, N. Y.

Nugent, John.....Southampton, N. Y.

Nugent, John Henry..Southampton, N. Y.

Nutt, Samuel D.
146 Woodhaven Avenue Woodhaven, N. Y.

O'Brien, William J.....99 Berry Street

O'Connor, Charles George
233 Brooklyn Avenue

Ogden, George Stewart..1024 Ocean Avenue

Oginz, Philip.....490 Stone Avenue

Ohly, John Henry....22 Schermerhorn Street

Otis, F. Burron.....369 Hancock Street

Owens, George C.....275 Kingston Avenue

O'Hanlon George
Bellevue Hospital, New York City, N. Y.

Onuf, Brinslow
208 Montross Avenue, Rutherford, N. J.

Overton, Frank.....Patchogue, N. Y.

Paffard, Frederick C.....89 Remsen Street

Palister, Stanley Wilson
222 Jefferson Avenue

Palmer, George Hollis...498 Greene Avenue

Parrish, John W.....111 Montague Street

Parrish, Paul L...52 South Portland Avenue

Pascual, William Vincent
690 St. Marks Avenue

Peake, Chester A.....1854 Bedford Avenue

Pearlstein, Maurice Barrett.309 Hewes Street

Pendleton, Judson Philbrook..125 Park Place

Peterman, Charles P.....809a Greene Avenue

Peterson, Winfield A.....451 50th Street

Pettit, Henry S.....106 Gates Avenue

Pettit, William Randolph....1918 Avenue K

Pfeiffer, William....368 Mc Donough Street

Phillips, Gray.....67 Hanson Place

Pierson, Ferrand Baker.....837 Park Place

Pierson, William H..101 Mc Donough Street

Pilcher, James Taft.....145 Gates Avenue

Pilcher, Lewis Stephen....145 Gates Avenue

Place, E. Clifford.....59 Livingston Street

Platt, Foster H.....851 Lincoln Place

Polak, John Osborn...20 Livingston Street

Pomeroy, Ralph H.....93 Remsen Street

Pond, Erasmus Arlington..1093 Dean Street

Pool, William Pohlman...166 Clinton Street

Poole, John W.....1728 Voorhees Avenue

Porter, E. Pender.....1 Glenada Place

Potter, Alfred.....374 Sterling Place

Potter, Mary Emma..305 Washington Avenue

Price, William H.....98 Fort Greene Place

Pullman, James.....155 Reid Avenue

Parsons, Alfred H.....Great Neck, N. Y.

Patiky, Joseph J...Huntington Station, N. Y.

Payne, Albert E.....Riverhead, N. Y.

Pendill, Willoughby C....Huntington, N. Y.

Pershing, Edward H.....Woodmere, N. Y.

Peterson, Frederick C.....Smithtown, N. Y.

Pettit, Robert W.....Patchogue, N. Y.

Pflug, Henry Edward
2450 Van Cortlandt Avenue, Evergreen,
N. Y.

Phipps, Howard Morton..Hempstead, N. Y.

Quinn, William James....781 Forest Avenue

Rabinowitz, Harris Milton, 149 Watkins Street

Rae, Alexander.....117 Henry Street

Randall, Edwin Thompson
139 Hancock Street

Ranken, John Francis.....852 Park Place

Rankin, William H.....151 Hancock Street

Rappold, Julius C.....750 Flushing Avenue

Rathbun, Nathaniel Philip..67 Hanson Place

Rauth, Emil.....695 Lafayette Avenue

Raynor, Frank C.....184 Joralemon Street

Read, John Sturdivant....174 Clinton Street

Reb, John H.....328 Jay Street

Reed, George E.....737 Putnam Avenue

Reichers, George H..1411 Bushwick Avenue

Reque, Peter A.....440 Clinton Street

Reynolds, Willard G.....1165 Dean Street

Rickard, Wilbur L.....390 Stuyvesant Avenue

Rink, Walter S.....226 Hancock Street

Risch, Otto E. F.....495 Third Street

Ritch, Amos Mead.....711 Putnam Avenue

Ritch, Orlando S.....78 Halsey Street

Roberts Dudley D.
270 Park Avenue, New York, N. Y.

Robertson, Victor A.....51 Eighth Avenue

Robinson, Nathaniel.....89 Halsey Street

Rogers, Hugh Edward....30 Hampton Place

- Rohde, Otto Henry
1037 Curson Avenue, Los Angeles, Cal.
- Rome, Russell Murray..246 Clermont Avenue
- Ross, Walter H.....215 Jefferson Avenue
- Royce, Rubert S.....200 Greene Avenue
- Rushmore, Jaques Cortelyou
477 Washington Avenue
- Russell, Julien W.....6 Plaza Street
- Rutz, Anthony A.....16 Eighth Avenue
- Ryan, Lorme Mc Donnell
38 Livingston Street
- Rau, Leonard S.....Lawrence, N. Y.
- Rave, Adolph George.....Hicksville, N. Y.
- Rhame, William.....Freeport, N. Y.
- Riley, Francis Gerard
44 Hardenbrook Avenue, Jamaica, N. Y.
- Rodger, David R.
8714 102nd Street, Richmond Hill, N. Y.
- Ross, C. A.....Creed Avenue, Queens, N. Y.
- Ross, William H.....Brentwood, N. Y.
- Ross, William Holmes.....Sayville, N. Y.
- Runcie, William H.....Freeport, N. Y.
- Runge, Otto Ernest
87 Foxall Street, Ridgewood, N. Y.
- Russell, Irving I.....Setauket, N. Y.
- Salmon, Armand J.....166 Sands Street
- Sammis, George Frank.98 Brooklyn Avenue
- Sarason, Peter Benjamin.284 Eleventh Street
- Sauer, C. Theodore.....284 Sixth Avenue
- Schaefer, Ernest L..801a Willoughby Avenue
- Schaffner, Philip M...121 Joralemon Street
- Schauf, Adam.....246 Stuyvesant Avenue
- Schelling, Henry L..264 Stuyvesant Avenue
- Schenck, Herbert Dana....75 Halsey Street
- Schirmer, William C..596 St. Marks Avenue
- Schroeder, Frederick.....290 Park Place
- Schroeder, William.....339 President Street
- Schroeder, William, Jr..184 Joralemon Street
- Scofield, Charles Edward...880 Park Place
- Scott, Peter.....126 New York Avenue
- Scrimgeour, Robert.....752 Carrol Street
- Search, Charles J.....453 Franklin Avenue
- Searle, Marcus Fowler.....34 Plaza Street
- Seidensticher, Richard Frank.1147 Dean Street
- Shann, Herman.....207 Hart Street
- Shaw, Richard E.
Long Island College Hospital, Brooklyn
- Shaw, Fawcet W.....320 New York Avenue
- Shay, James Joseph..526 Forty Seventh Street
- Shea, J. Denton.....28 Prospect Park, West
- Sherman, David.....466 Ninth Street
- Sherman, Morris....2959 West 32nd Street
- Sherman, M. Mortimer
Kings County Hospital, Brooklyn, N. Y.
- Sherwell, Samuel....33 Schermerhorn Street
- Sherwood, Walter Aikman..145 Gates Avenue
- Sibbel, Armin Joseph..882 Bushwick Avenue
- Simmons, William...23 Schermerhorn Street
- Simpson, J. Louis.....97 Park Avenue
- Simrell, George Wallace..151 Hawthorn Street
- Skelton, Eugene Wilson...294 Sixth Avenue
- Slote, Samuel H.....75 Mc Kibbin Street
- Smith, Alvarez H.....382 Carlton Avenue
- Smith, Archibald Delap....1232 Dean Street
- Smith, Edward J....2016 Albermarle Road
- Smith, Esmonde Bathgate...1159 Dean Street
- Smith, George H.....161 Hancock Street
- Smith, Henry Mitchell..184 Joralemon Street
- Smith, Isaac Beckett.....137 Noble Street
- Smith, Joseph.....607 Eastern Parkway
- Smith, William Sidney
370 Washington Avenue
- Snell, Howard B.....299 Clinton Street
- Somers, James Alpheus....96 Green Avenue
- Spain, Purvis A.....911 Green Avenue
- Spence, Thomas B.....541 Third Street
- Squibb, Edward Hamilton.161 Henry Street
- Sterling, John H.....60 Green Avenue
- Stevenson, Robert.....97 India Street
- Stewart, James Alexander
1030 Bedford Avenue
- Stickle, Charles Waldo...86 Pierrepont Street
- Stone, Charles Lucius....152 Halsey Street
- Stone, William Livingston...475 75th Street
- Stork, Louis.....337 Seventy Seventh Street
- Sturges, Purdy H.....212 Garfield Place
- Sullivan, John D.....74 Mc Donough Street
- Sullivan, Raymond P.
270 Park Avenue, New York, N. Y.
- Swan, Eugene La Forrest
310 Washington Avenue
- Shumway, Sanford O.
422 Lafayette Avenue
- Sampsell, Ward.River Crest, Astoria, N. Y.
- Savage, William B.....East Islip, N. Y.
- Schenck, Garrett W.
86 Mott Avenue, Far Rockaway, N. Y.
- Schirck, Frederick F.....Mineola, N. Y.
- Schmuck, J. Carl.....Lawrence, N. Y.
- Schneble, John Peter
406 Benedict Avenue, Woodhaven, N. Y.
- Schultheis, Daniel
615 Sanford Avenue, Flushing, N. Y.
- Schultz, Michael M.
10 Villard Avenue, Hollis, N. Y.
- Schweikart, Frederick J.
26 Bietor Place, Elmhurst, N. Y.
- Scovil, William Thomas
Church Street, Richmond Hill, N. Y.
- Seaman, Benjamin White..Hempstead, N. Y.
- Sgier, Martin Joseph
Herald Avenue and Emerson Place, Richmond Hill, N. Y.
- Sheridan, Joseph P.
1002 Church Street, Richmond Hill, N. Y.
- Shipman, Elliott W.
8519 118th Street, Richmond Hill, N. Y.
- Shotwell, John Byron..Southampton, N. Y.
- Shuttleworth, James Evan
441 Brandon Avenue, Richmond Hill, N. Y.
- Silliman, George Stephen....Westbury, N. Y.
- Siner, Emanuel
8657 106th Street, Richmond Hill, N. Y.
- Skidmore, Melville....East Moriches, N. Y.
- Slocum, Millard M.
303 Broadway, Far Rockaway, N. Y.
- Smith, Alfred H.....Springfield, N. Y.
- Smith, George A.....Central Islip, N. Y.
- Smith, Harold Ellsworth
180 Lefferts Avenue, Kew Gardens, N. Y.
- Smith, Sidney E.
28 Forest Parkway, Woodhaven, N. Y.
- Spiro, William Warren
16 Third Street, Long Island City, N. Y.
- Squire, Frederick Duane.Sony Brook, N. Y.

- Steele, William J.....Baldwin, N. Y.
 Stevens, Harry E.....Jamesport, N. Y.
 Storesser, Henry
 Shaw Avenue, Richmond Hill, N. Y.
 Stokes, John Wallace.....Southold, N. Y.
 Stone, William Metcalf
 117 Sanford Avenue, Flushing, N. Y.
 Story, Charles B.....Bayside, N. Y.
 Strong, S. Meridith
 616 Madison Avenue, New York, N. Y.
 Stumpf, Conrad Otto.....Queens, N. Y.
 Steffer, Walter Carl August
 352 First Avenue, College Point, N. Y.
 Scorza, Salvatore R.
 253 Radda Street, Long Island City
- Tag, Charles H.....284 Jefferson Avenue
 Takami, Toyohiko Campbell
 176 Washington Park
- Talmadge, Junius Parker
 Long Island College Hospital, Brooklyn
- Tanner, Ernest Ketcham....1205 Dean Street
 Tarbox, Harry R.....1178 Dean Street
 Taylor, John Mortimer.....5 Plaza Street
 Tenopyer, Joseph.....1256 Ocean Avenue
 Terrence, Joseph Gerard....80 Rugby Road
 Terry, Walter Raymond....41 Linden Street
 Thompson, William B..1103 Lorimer Street
 Thomson, Alec Nicol.....835 Park Place
 Thunig, Louis Albert....1069 Bergen Street
 Tieste, Louis E...55 South Portland Avenue
 Tilney, Frederick
 22 East Sixty Third Street, New York, N.Y.
- Todd, Joseph F.....402 Sterling Place
 Tong, George William.....519 Third Street
 Townsend, Palmer.....355 Hancock Street
 Truslow, Walter.....67 Hanson Place
- Tepper, Abraham Samuel
 Central Avenue, Far Rockaway, N. Y.
- Terrell, Alan Greenleaf....Riverhead, N. Y.
 Terry, Arthur H.....Patchogue, N. Y.
 Thomas, Joseph S.
 259 Amity Street, Flushing, N. Y.
- Tibbetts, James T.
 168 Mineola Boulevard, Mineola, N. Y.
- Trask, James D.....Highlands, N. J.
 Travis, Wilbur Carlton....Northport, N. Y.
 Turrell, Guy H....Smithtown Branch, N. Y.
 Tweddel, Francis.....Great Neck, N. Y.
 Twining, Lewis A....Centre Moriches, N. Y.
- Upham, Roy.....300 Mc Donough Street
- Van Cott, Joshua Marsden..188 Henry Street
 Van Sickle, Albert M.....545 54th Street
 Vaughan, Ernest M.....102 Fenimore Street
 Vause, Frank C.....381 Franklin Avenue
 Virdone, Paolo.....31 Jefferson Street
 Vogt, Clarence Bryant..498 Hancock Street
 Vogt, Walter Eugene..191 St. Nicholas Avenue
 Vosseler, Theodore Luther
 390a Monroe Street
- Van Winkle, Leroy P.....60 Hanson Place
 Van Kleeck, Louis Ashley..Manhasset, N. Y.
- Victor, Abraham William
 360 Boulevard, Rockaway Beach, N. Y.
- Vogt, Benedict, Jr.
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Pylorospasm A Case Report With Comments

ROBERT F. IVES, M. D., F. A. C. P.

Brooklyn, New York.

Pylorospasm—a disturbance of gastric motility, which because of its simulating in its result, malignant disease, demands prompt recognition and efficient medical treatment, rather than, through a too hasty and faulty judgment, be submitted to surgical operation.

Cases of this type of gastric disease are frequently met with in practice and when promptly recognized, respond readily to treatment. As a result, however, of failure to thoroughly comprehend the nature of pylorospasm, through an understanding of gastric physiology and its manifold etiology, they progress deeper and deeper into the state of inanition and exhaustion; are carelessly classed in the category of malignancy and permitted to decline as hopeless cases; or are submitted to radical operative measures. Exploratory laparotomy, with a possible gastroenterostomy, is done to the detriment of the patient and the mortification of the physicians.

This condition is usually due to some form of irritation, direct or reflex, causing a cramping or tonic contraction of the pyloric sphincter. (It is well to recall that the pyloric sphincter consists mainly of a circular or enlarged bundle of circular muscular fibers). As this muscular spasm occurs at the age when carcinoma prevails, it is often looked upon as a pyloric stenosis of malignant nature, and the truth of the benignness of a simple pyloric spasm is overlooked.

In the largest number of cases showing this symptom there exists a condition of hyperesthesia, hyperacidity, hypersecretion, or even gastric or duodenal ulceration, gastroptosis or gall-bladder disease. There may be cancer at the pylorus or a reflex irritation from some lesion or disease of the abdominal organs.

A very careful differentiation is imperative. All possible means and methods should be used—lavage with gastric analyses, roentgen studies, etc., to aid in establishing the diagnosis.

As a result of irritation, at the height of digestion, earlier or later, the pylorus suddenly becomes spasmodically contracted, and the patient experiences intense pain in the epigastrium, radiating from the median line, and accompanied by eructations.

A history is usually obtained of similar attacks throughout the previous months or years. The disorder appears periodically at first, until finally the attacks become practically continuous. Vomiting appears with nausea, and frequently the vomitus consists of a deeply-colored, dark brown, "coffee ground"—like, stagnant foodstuff. (This "coffee ground" symptom is erroneously accepted by many physicians as almost pathognomonic of malignancy). Symptoms of hyperacidity may be present or absent. Evidences of gastric dilatation are now observed, and in long-standing cases a very atonic stomach may be present. The spasm may come on frequently at night. On examination, during the attack, local tenderness may be found and a mass, the firm pylorus, may be felt.

As the patient has invariably lost many pounds in weight, and is anemic and emaciated, though not cachectic, the first impression is one of malignancy. Unless the physician is guided by laboratory findings, and as a result of careful differential judgment, the opinion of malignancy is apt to be expressed. And because of the evidence of total obstructions at the pylorus, with pronounced enlargement of the stomach, which is even borne out by the roentgen pictures, immediate operation may be advocated and a gastroenterostomy attempted with possible loss of life through the operation.

With a view of directing attention to this common and remedial condition and as a plea for more careful differentiation in these cases, the following interesting and instructive case is reported:

Mr. J. B., age 65; an intelligent business man of good habits, with no venereal history.

Previous history negative.

For the past three or more years, has had many attacks of gastric discomfort with pain and belching. Is chronically constipated.

Two years ago, had a severe attack of pain with vomiting, which was relieved by stomach washing and careful diet. For the past three months, more frequent attacks of pain; the attacks occurring every week or ten days. Experiences a fair degree of comfort between attacks. His appetite has been good, though recently the amount of food taken has been very moderate. A steady decline in weight has been noticed for some weeks.

Three weeks prior to observation, the pain in the stomach became constant and distressing, associated with vomiting, the vomitus consisting of a dark, unpleasant smelling fluid of large amount. The patient had been drinking water copiously to relieve the distress. Vomiting always gave relief from the pain.

General physical examination shows a pale, anemic man of evidently 65 years—having lost over 25 pounds in a period of three months. A sense of profound weakness necessitated his absence from business.

The heart and lungs were negative. Kidneys negative. Liver negative; not enlarged. No evidence of urobilinogen in the freshly passed urine.

Blood examination revealed a pronounced anemia:

Hemoglobin, 70%	Polymorphonuclears, 60%
Red. blood cells, 3,500,000	Lymphocytes, 10%
White blood cells, 8,000	Cell types, normal.
Urine:	Blood Pressure:
Specific gravity, 1020,	Systolic, 140,
Reaction, acid,	
Albumin, none,	Diastolic, 100,
Sugar, none,	Pulse pressure, 40.
Urobilinogen, none.	

Facial arteries tortuous, but no intensification of the aortic second sound.

Eyes, ears and throat normal for his age.

Abdomen shows a pronounced gastropnoptosis, gastrectasia and general splanchnoptosis. No contraction waves seen over the abdomen.

A distinct mass felt at the time of the acute pain and verified on subsequent occasions over the pyloric area.

The whole picture presented the impression of malignancy.

The stomach was emptied by the stomach tube, following an Ewald test breakfast, and submitted to the laboratory for analysis, and on the same day the patient underwent a roentgen study of the stomach.

Following is the report of the gastric contents:

General appearance, coffee ground,	Food Materials:
Amount, 520 c. c.,	Tissue fibers, absent,
Color, dark brown,	Stomach granules, few,
Odor, sour,	Fat, few globules,
Solids, few,	Micro-organisms, absent,
Mucus, moderate,	Oppler-Boas, absent,
Swallowed mucus, a small amount,	Sarcinae, absent,
Reaction to litmus, acid,	Blood cells, absent,
Free Hcl., 95,	Epithelium, squamous,
Combined Hcl., 8,	Tumor fragments, absent,
Total acidity, 108,	Yeast plants, many present,
Lactic acid, absent,	Odor, yeasty rather than rancid.
Occult blood, absent,	
Bile, absent.	

Roentgen Report:

The x-ray of the barium-filled stomach shows the following:

Size, dilated,
 Form, sausage-shape,
 Position (erect), greater curvature four inches below the level of the iliac crests,
 Position (prone), greater curvature one inch above the level of the crests,
 Tonus, ortho,
 Peristalsis, none,
 Filling defects, none.

Pylorus—

"There is a stenosis present, so that no barium passes through the orifice, and the pyloric end rounds out, the margin being regular."

Cap, not observable.



FIGURE 1.

Before Treatment. Picture taken prone. Barium shadow shows practically no emptying of stomach at the end of four hours. See text.



FIGURE 2.

After treatment. This is also a four hour picture, taken under exactly similar conditions as Figure 1. Most of the barium has left the stomach and the colon is already well filled. This demonstrates the relaxed pylorus.

Diagnosis—

"The roentgen study justifies a positive diagnosis of pyloric stenosis with dilatation of the entire stomach. Whether the stenosis is due to malignancy or the result of an old ulcer, I am unable to state positively. I believe, however, from the general appearance, that it is the result of old ulcer, and that an exploratory laparotomy is immediately indicated."

Stool examination, for occult blood, was negative.

From the laboratory studies we deduce certain important and helpful diagnostic criteria.

From the gastric content analysis:

Against malignancy—was the high degree of acidity; the absence of occult blood (95 per cent. of cases of cancer show occult blood); the absence of the Oppler-Boas bacillus; the yeasty odor, instead of the usual rancid odor; and the absence of tissue fragments. Thus from the gastric analysis was attention awakened to question this more serious possibility.

For cancer—might be considered the complete pyloric stenosis; the excessive and persistent dilation of the stomach; and the coffee ground color in the gastric vomitus.

As a result of the data gathered by roentgen study and gastric content analysis, the diagnosis of malignancy was questioned and a tentative diagnosis of benign stenosis of the pylorus, or a condition of pylorospasm in the terminal stage of stenosis, dilatation and stagnation, was suggested.

All possible means were made use of to relieve the dilatation and the spasmodic condition.

Daily gastric lavage with alkaline solution soon gave relief to the pain and vomiting and gradually lessened the highly acid, coffee ground fluid withdrawn.

Additional alkaline powders of soda and magnesia were given every 4 hours, and to lessen the spasmodic constriction of the circular muscle at the pylorus, Benzyl benzoate, H., W. & Co., in 20-drop doses were administered every 4 hours.

The diet was rigorously restricted to small amounts of milk, while thirst was relieved by water administered by rectal tube every 4 to 6 hours.

For the splanchnoptosis and gastropptosis, a specially designed supporting belt was worn whenever the patient arose.

Results exceeded all expectations. The outlook promptly changed for the better. The truth of the diagnosis of pylorospasm was verified, and the patient promptly improved.

A second series of roentgen pictures was taken up to a period of 6 hours after test meal, from the study of which proof of the relaxation of the sphincter muscle was established. The stomach emptied itself in 4 hours, and its normal movement along the intestinal tract was satisfactorily followed.

Full stools were obtained by small doses of cascara.

A rapidly increased food quantity resulted in a rapid gain in weight. Within three weeks a gain of 15 pounds was recorded.

Under tonic treatment, the patient rapidly regained strength, and reports feeling better than for the past year.

So satisfactory was the treatment that certain definite lessons may with profit be drawn from the case:

First—That a very careful differential diagnosis should be made in every type of gastric pain and derangement.

Second—That full clinical and laboratory data be obtained prior to formulating a definite diagnosis.

Third—That the internist should observe every care to formulate a definite diagnosis in the case, and not be too hasty to resort to surgical interference in the way of an exploratory laparotomy. An exploratory laparotomy is only permissible after the failure of every available means to formulate an opinion.

Fourth—That pylorospasm should always be suspected and eliminated by proper measures, before operation is considered.

Fifth—That "coffee ground" fluid vomited does not necessarily indicate malignancy, but does suggest gastric dilatation, retention and food stagnation.

Sixth—That the diagnosis of malignancy should not be made in the absence of occult blood, Oppler-Boas bacillus or rancid odor of the gastric fluids.

Seventh—That the stomach tube is imperatively needed in cases of gastrectasia with vomiting.

Eighth—That roentgen diagnostic suggestions should be received by the internist as evidence only, and not as a positive indication for surgical intervention, and, finally:

Ninth—A plea is made for the application of a fuller knowledge of recent physiology and recent therapeutics in the care and treatment of gastric derangements. With this latter in mind, a few words about recent studies in physiology by Ducceschi, working in the laboratory at Fouos, in Italy, as described by Lucian, may be profitable.

* Ducceschi reconstructs the motor function of the stomach in co-ordination with its digestive processes as follows:

The descent of food into the stomach produces distention of the muscular coats, which determines the peristaltic movements in the region of the cardia, fundus and body of the stomach. While the secretion of the gastric juices occurs at the same time with an increasing degree of acidity. This factor again reinforces the movements, and in proportion as the digestive process advances, the tonic and partially motor action of the peptone is added to the motor action of the hydrochloric acid.

This explains how the peristaltic movements are initiated and sustained through the greater part of the stomach. *However*, the rhythmical movements of the pyloric antrum follow a different course in consequence of the same mechanical and chemical stimuli.

The food which fills and distends the pyloric antrum suppresses the rhythmical peristaltic movement from above, by the increasing acidity of the stomach juices and by the irritation of the solid particles which obstruct the pyloric orifice and an opposing or antiperistaltic wave is produced which reverses the food movements and redirects them again to the fundus, thus contributing to the churning and mixing of the ingesta for the furtherance of the digestion. At a certain stage in the process, the solid constituents of the foodstuffs are almost entirely dissolved, the mechanical movements lessen, the acidity of the chyme is reduced, the antiperistaltic waves subside, and the pyloric sphincter resumes the rhythmic, systolic and diastolic movements normal to it. While this tonic contraction of the sphincter ceases at

* Luciani's Human Physiology Vol. II. pp. 192.

each relaxation of the sphincter and each revolution of the pyloric antrum, there is a little spurt of chyme into the duodenum.

Ducceschi proved that 24 hours after a meal, the stomach is practically immobile, its movements commencing immediately after the ingestion of food. That excessive acidity of gastric contents causes a firm tonic contraction of the pyloric sphincter. That in proportion to the distention within normal limits, the amplitude of the peristaltic waves increases. That there is a limit to the distention of the stomach, beyond which the peristaltic movements diminish, and are finally abolished. Hence, if by reason of any condition present, the sphincter is thrown into this tonic (tetanic) spasm, it is persistently maintained, the stomach gradually loses its tonicity, and dilates, with the production of an overdistended, atonic, functionless organ, to be followed by pain and vomiting. With this physiological picture in mind, an analysis of the case-history presented is clarified:

To summarize—

First—The patient had a congenital displacement of the abdominal viscera which, through error of diet and overwrought nervous mechanism, caused the condition of hyperacidity spasm and gradual dilatation of the stomach.

Second—The constant production of pyloric antrum irritation by the hyperacidity and undigested food, maintained the condition of spasmodic pyloric contraction.

Third—The gradual increase in the stomach dilatation inhibited the peristaltic waves and produced a dilated and atonic organ unable to function.

Fourth—The dilated stomach and the actively aggravated pylorospasm caused the pain and, eventually, the vomiting of highly-acid and coffee-colored, yeasty-smelling gastric contents.

The roentgen pictures of the first series showed complete closure of the pylorus and excessive dilatation and misplacement of the stomach.

Fifth—The result of diet, lavage and neutralization produced a prompt release of the spasmodic stricture and a gradual reduction in the size of the stomach, a very gradual re-establishment of the peristaltic waves and an onward movement of the chyme.

Sixth—The second series of roentgen pictures clearly showed the patent pylorus, the duodenal cap, the absence of signs of malignancy or ulceration, the onward movement of the test material and the complete emptying of the viscus in four hours.

Finally—today the patient is restored to health, he has gained 25 pounds in twelve weeks, he has no pain or gastric distress, is taking a carefully selected full diet and is again at the daily grind of an exacting business, feeling that a miracle has been performed in his case.

The last gastric analysis:

Date, September 23rd.	Acid salts, 8,
General appearance, normal,	Mucus, gastric—very slight,
Color, grayish white,	Blood, absent,
Odor, normal,	Lactic acid, absent,
Solid constituents, test meal,	Occult blood, absent,
Reaction to litmus, acid,	Bile, absent,
Free Hcl., 60,	Tissue fibers, absent,
Combined Hcl., 6,	Starch granules, numerous,
Total acidity, 74,	Fat, trace,

Microörganisms,
Oppler-Boas, absent,
Sarcinae, absent,

Crystals, none.
Bacterially normal.

The case is submitted for the lesson it contains, rather than for any new evidence on the subject of pylorospasm. The physician to whom is entrusted the care of these problems, and the very life of the patient should carefully consider these cases with the greatest attention to differential diagnosis, for they are apt to reach the specialist too late for results, or are relegated to the surgeon, who, without further intensive study, promptly resorts to exploratory operation, prepared to do at least a gastroenterostomy.

Internists should never submit these cases for exploration until they have been subjected to a most exacting and intensive study, for it is a serious matter to recommend operation on the stomach to a man of 65 years.

When, however, in the judgment of the internist, the case warrants surgical clarification or intervention, then will the surgeon be asked for his surgical assistance. But, as Internists, let us direct their operations and not rely on their technical activities to cover or uncover our errors.

The Mentally Deficient Child, Its Care, Education and Future

BY SYLVESTER R. LEAHY, M. D.

Brooklyn, New York.

WITH the introduction of precise methods for the measurement of intelligence as represented by the Binet-Simon test and its various modifications, has come an interest in the defective child which had previously been only casual. Many problems which have been baffling in the past have been made clearer as the result of these tests. The tests in themselves, while extremely valuable, have not always been properly interpreted because they have not always been applied by properly trained and qualified individuals. The fault is not with the tests, but rather with the mode of application. Furthermore, with the discovery that mental deficiency was much more frequent than had formerly been supposed, there came a general demand that all these individuals be segregated from society, as all of them were regarded as a source of danger. The pendulum has now swung back, and we are now looking upon these deviates in a much more practical and humane way. It is a matter of common experience that a feeble-minded individual often realizes his own limitations far better than some of our so-called normal ones.

Psychological tests have shown that children do not fall into two well-defined groups, "the mentally deficient" and "the normal." Instead it has been found that there are many grades of intelligence rang-

ing from profound defect on the one hand to superior intelligence on the other. Even in so-called normal individuals there are vast differences in intelligence.

Hitherto we have complacently sent our children to school with the demand that they be educated, caring little by what means, and when failures resulted we blamed the school system. It is true that the modern school system is intended for the average child, and that both the inferior and superior child suffers as consequence. As in other social problems we have learned by experience that the study of groups as a whole rather than trying to solve the individual problem, results in much wasted effort and useless expenditure of public moneys. We are coming to the realization that the schools must take into account the existence and significance of individual differences in innate ability in children, and that it is useless to attempt to hold mentally defective children to the standard of progress set for the average normal child.

Mental deficiency is a term that is difficult to define. In plain words, the mental defective is one who does not possess average mentality for his age and opportunity. The definition most generally accepted is one formulated by the Royal College of Physicians and Surgeons at London and adopted by the English Royal Commission on Mental Deficiency. It is as follows:

"A feeble minded person is one who is incapable because of mental defect existing from birth or from an early age.

- (A) of competing on equal terms with his normal fellows, or
- (B) of managing himself or his affairs with ordinary prudence.

The chief characteristics of the above definition are efficiency both along social and industrial lines. Efficiency depends not only on intelligence, but also on other factors as well, and the emotional, physical and social characteristics of the individual are quite as important as the intellectual. Some individuals who are classed intellectually as defectives are not really so from the behavioristic stand-point and others who rate high mentally and may even be classed as superior individuals cannot be regarded other than defective because of abnormalities of conduct.

There are other objections to the above definition, for instance "ordinary prudence" may be construed in many different ways, and "competing on equal terms with his normal fellows" may cover a multitude of sins because it includes dull individuals also. As long as a feeble-minded person conducts himself so as to avoid conflict with the laws of society, he escapes segregation. Furthermore a feeble-minded individual who lives in a community of feeble-minded persons can certainly compete successfully with his fellow citizens. As Bailey put it, "mental defectives are children who do not grow up, and many of their problems are almost the same as those of childhood." The vast majority, handicapped as they are, are not so different from normal children, but they will always remain children, whatever their age, despite the advice of the good old family doctor who always maintained that they "would grow out of it." It is only in recent years that the child has received the attention from public agencies that it has deserved, and when the public at large learns to look upon the defective child in the proper manner and realize the handicap under which he struggles, there is no doubt that adequate provision for his care and training will be made. Those engaged in social work, par-

ticularly with the defective child, will have to act as accelerators of public opinion, in order that proper provision for the handling of this problem may not be too long deferred by the State.

One is frequently asked, "What is the cause of mental deficiency?" Investigations of this problem have shown that the principal cause is heredity, and that the other causes are practically negligible because they are acquired. If one remembers one of the principal axioms of the Mendelism Theory as applied to the human race it is that two feeble-minded individuals when mated will produce only feeble-minded offspring. The great majority of feeble-minded individuals are such because they come from family stock which transmits feeble-mindedness from generation to generation in accordance with the laws of heredity. While some of the members of these families are not defectives themselves, they may have the power of transmitting the taint, and are liable to have a certain number of defectives among their own descendants. The number of persons who are feeble-minded as the result of injuries and disease is much smaller than had been anticipated, and furthermore these cases of acquired deficiency do not transmit their defect to their progeny. As a result of bad heredity, mental deficiency is one of the greatest problems with which we have to deal to-day, not only because of the problem itself, but because of the social problems which are a direct result of mental deficiency. If modern marriages were arranged with any degree of concern as to the family history and as to the mental make up of the progeny, our problem would be greatly minimized. When we consider that it is estimated that of the 1,000,000 school children in New York State, 30,000 are retarded or defective, we are able to realize to some extent the gravity of this problem. But we know that this does not represent by any means the true number of defectives which really must exist. "The Kallikaks," the "Jukes," are specific instances of the results of defective individuals begetting their kind, with whose history you are all undoubtedly familiar.

Results of mental deficiency are seen to-day in the Courts of New York City, and especially in the Children's Courts. Of 781 cases examined out of a total of 14,519,504 were feeble-minded or retarded. In the Prison Wards of Bellevue Hospital, many of the cases committed for grave crimes are defectives in the higher grades, the so-called 'Moron' type. Terman states that the most important trait of at least 25% of our criminals is mental weakness.

Morality depends upon the ability to weigh the consequences of behaviour for the individual and his fellows, and also upon the desire and capacity for self-restraint. All criminals are not feeble-minded, but all mental defectives have criminal possibilities. Moral judgment is a function of intelligence to a large extent. The feeble-minded child or person being of defective intelligence is naturally more susceptible to evil influences and is often a tool in the hands of his more astute associates.

The diagnosis of mental deficiency should never be made by means of a psychological examination alone, but a careful history of the case should be secured from his parents, and particularly the observations of his teacher should be secured. Following this, a complete mental examination and also a physical examination should be made by a competent psychiatrist. Psychological tests are invaluable in determining intelligence per se, but do not estimate any deviation in the emotional field which may be present as a result of disease, and one may be

dealing with a definite psychosis or a psychopathic individual, with the result that a wrong diagnosis may be made. In the psychopathic individuals particularly the intellectual rating may be unusually high, but nevertheless the individual be absolutely incorrigible. In fact these individuals and those showing a higher grade of mental defect are the most difficult ones which the workers in this field are called upon to handle and are the ones for which so far as I know no adequate provision has been made.

The solution of this problem is largely educational, education of the individual along the proper lines, education of the parents and of the general public. The low grade mental defectives are institutional cases primarily but many of these when handled intelligently can be taught to care for themselves and to do some simple manual work.

In educating these children, one must not lose sight of the fact that they are incapable of abstract thinking to any important extent. While their memory is good, especially in the higher grade types, yet one who is not familiar with the problem is inclined to give them credit for far more knowledge than they actually possess, because of their ability to remember numbers and words whose meaning they really do not know. This ability to remember may be made use of in the early life of these individuals in teaching them proper traits, because experience shows that these children do not forget things which they have once learned very easily. It is useless to train these children in any but concrete things, and especially in those which involve simple things. Manual training is therefore best adapted to this group, and best given either in special classes in the public schools or in institutions where competition is with their own kind.

What of the future of the defective child? Many states have or are establishing State Commissions to handle this problem and New York State established one in 1918 under the able leadership of Dr. Pierce Bailey and his able assistant Dr. William C. Sandy. Unfortunately this commission has been handicapped for lack of funds, but it has already done valuable work by co-operation with public agencies in the establishment of clinics where these children may be examined and their parents advised according to the needs of the individual case. A group of defective children showing an intellectual level of eight years is not homogeneous mass by any means, and many of their problems may be adjusted under proper school service care.

Just as in the problem with the insane, the present attitude toward the feeble-minded is not to force them into institutions unnecessarily but rather to help them keep out, and the future will see a greater extension of extra-mural care. If the parents are not willing to co-operate in this work, then it becomes necessary that the individual be committed to a proper institution, where a proper education will aid him in competing with his fellows when released on parole. A parole system such as that established by the New York State Hospital Commission for mental diseases should be put into effect for the mental defectives.

We believe that much of the work connected with this problem will be done by special classes or better special schools in the public school system, and already remarkable results have been obtained by Miss Farrell of the New York City Department of Education, along this line. We would advocate that all children upon arrival at school age, before being entered, be graded according to psychological tests. In this way many defective children could be picked out at once and

placed in special classes, and much time and expense saved. When a child fails in his grade, he should also be given a mental test, to find out whether his failure is not due to defective intelligence. It is believed that this plan would be more feasible and less expensive than a general survey conducted on a large scale. The future of this problem lies in its early recognition in childhood, and with it the establishment of proper medical and educational training.

Gonorrhea in Men: Further Observations on the Use of Acriflavine

GRAY PHILLIPS, M. D.

Brooklyn, New York.

FIFTY years ago Stilling proposed the employment of methyl violet as a germicide. Given the name of pyoktanin (pus-killer) it has been used in different conditions with varying results to the present day. Its vivid staining qualities and the fact that substances of unlike composition were given the same name probably were the reasons for its infrequent application.

In recent years considerable research has been expended on the dyes. Several have been pronounced potent germicides and disinfectants. Acriflavine and members of the acridine group are among these, as are also 'brilliant green,' fuchsin, mercurochrome-220 (a compound with fluorescein), and others. In high dilution these dyes inhibit the growth of, or actually destroy pathogenic organisms. But it has also been demonstrated that a stain which has a lethal effect on bacteria is no less injurious to connective tissue cells isolated in culture. Therefore, when these agents are applied to a patient's infected tissues, the diseased cells in addition to combating the invading organisms have the superimposed burden of resisting the effects of the curative measures. In most instances the greater portion of the bacterial element is promptly overcome by the dye and the chemical trauma is not sufficiently severe to be more than a temporary microscopic insult easily overcome by the lymph-nourished tissues. Even when dilute solutions of some of the dyes are used in the urethra erosion of the superficial layers of the stratified epithelial cells is caused and a consequent cloud in the urine results. Frequently local tingling and burning is complained of by patients. This is usually in direct proportion to the concentration employed.

N. P. Rathbun, in a paper read at the annual meeting of the Associated Physicians of Long Island, in February, commented favorably on the results following the use of acriflavine in cases of gonorrhea when employed according to the technique of the writer. At the time normal salt solution was used with the dye, 1:4000 being used for irrigations and 1:1000 for injections. It has since been shown that solutions made in distilled water are equally efficacious and that for injections, a strength greater than 1:4000 is not necessary. Of the various dyes acriflavine has been chosen for two practical reasons:

the light yellow of the 1:4000 solution is less glaring than the reds, violets, and greens; and is easily removed from skin and linen by thorough soap and water washing. Solutions of the dye obtained from American firms are darker than those of English manufacture, but the clinical results are identical. Irrigations are given to patients in a relaxed, sitting posture with the Valentine irrigator, the reservoir being suspended not more than four feet above the thighs. If the bladder sphincters are in a state of spasm or are not relaxed the urethra becomes distended and pain is caused. This is immediately relieved when a free flow into the bladder is made possible by a successful endeavor on the part of the patient to go through the act of urinating. After his bladder is filled the patient voids. Again the bladder is filled and he is instructed to refrain from urinating for two hours. Patients are instructed to use injections twice daily, in the morning immediately upon arising and just before retiring, after emptying the bladder. A bulb syringe of 15 ccm. ($\frac{1}{2}$ oz.) ensures freedom from trauma. When the patient injects himself, unclothed and sitting backwards on an uncovered toilet-seat, there is slight chance of troublesome staining. The dye solution should be retained for a literal five minutes. Then the excess is allowed to dribble away, the penis is gently wiped and wrapped with cotton. Urination should be abstained from for two hours.

The procedures and opinions outlined below are based upon clinical and microscopical studies made on eighty-four patients with involvements of various parts of their genito-urinary organs.

Patients presenting a purulent discharge of a few days' duration, who are free from indications of infection of the deeper urethra, whose urine when passed into two glasses is cloudy or hazy in the first and clear or almost so in the second, are irrigated once daily for a week and instructed to take two injections each day. The diseased mucous membrane of the anterior urethra is directly benefited and the deeper parts are thoroughly stained and rendered unfertile for implantation and growth of the gonococci. Sodium bicarbonate and much water drinking relieve painful urination in a few hours. During the second week the injections twice daily are continued, but only on alternate days are irrigations administered. Gonococci are difficult if not impossible to demonstrate in any serous discharge milked from the urethra after the sixth day. It would seem that the tissues reached by the dye are soon freed from organisms. However, gonococci which have become buried deeply in follicles along the urethra and have become surrounded and closed off by a round-cell infiltrate are evidently not reached and destroyed by the dye during the first two weeks of this treatment. During this time also the dye because of its irritant action may be causing areas of infiltration along the canal. This is particularly true if stronger than 1:4000 solutions are employed. In some cases the treatment so far outlined has resulted in cure. More often, however, unless the treatment outlined below is carried out, within forty-eight hours of discontinuing the use of acriflavine a profuse gonococcus-laden discharge makes its appearance.

On the fourteenth day, if the urine is free from cloud, even in the presence of shreds and slight watery discharge, a curved sound, 27 French, is passed after the bladder is distended with 120 ccm. (4 oz.) of solution. The patient voids and the bladder is again filled. The entire urethra is gently palpated and massaged over the sound, especially where small irregularities disclose the presence of infiltrated glands.

The fossa navicularis just within the meatus is a favorite lurking place for gonococci and should be massaged. A meatotomy at this time is frequently followed by a profuse discharge, which is easily checked by the prompt use of the dye. If the disease progresses favorably another curved sound, 30 French, is passed on the seventeenth day, after filling the bladder. Should no infiltrated glands be palpable the injections are stopped at this time, until the twenty-first day. Then, if the urine is free from cloud, a sound, 30 French, is passed, followed by irrigation with a 1.3000 silver nitrate. This measure should be delayed for a week if indurations are present along the canal. A slight discharge occurring at this time after the canal is irritated should be caught by the instructed patient and spread on glass slides which are examined for gonococci.

With experience deviations from the routine outlined may successfully be tried. Not all patients need so much treatment. Recurrences of the discharge, especially after the passage of sounds, are apt to appear but resort to irrigations and injections are followed by their prompt subsidence. Complications such as epididymitis and prostatovesiculitis have been rare, and only in cases where instructions have not been followed. Two patients developed mild subacute infections of their Cowper's glands when sounds were passed without the preliminary filling of their bladders. Their cases ran a mild course and did not require incision. A boy with a severe infection developed disease in his prostate and vesicles; he used a piston syringe having a long point. Among those patients making slow progress were three with hypospadias of moderate degree; they had trouble with the injections and one of them had several infected sebaceous glands about his meatus. As a rule, patients with strictures from previous infections require a longer course of treatment before becoming well. Patients engaged in strenuous work, and those not refraining entirely from sex excitement and alcohol respond less satisfactorily to treatment than do those who abstain.

Men with a free discharge, whose first and second urines are clouded, are irrigated at their first visit, are instructed to use injections, are given bicarbonate of soda, and in addition are given 1 ccm. of mixed stock vaccines. Sitz baths, at four hour intervals are ideal, but are not usually practicable more than twice daily. Progress in these cases is eminently satisfactory, especially when there is a strong local reaction at the site of vaccination. When frequency, deep urethral pain, and nocturia indicate the presence of deep involvement of the urethra the irrigations are not used but the injections are continued. Observations on such patients show that this in no way interferes with resolution of the deeper structures, and men so treated recover more quickly than others treated expectantly. They sooner reach the stage where more active measures may be used.

A cure may be considered to have been brought about when the urine becomes cleared of pus and shreds, when the expressed prostatic secretion presents normal lecithin bodies and is free from pus cells, and when the discharge resulting from dilatation with a Kohlman dilator and a silver nitrate irrigation is free from gonococci. In patients seen early in the course of their disease when it is limited to their anterior urethrae this happy state of affairs is determined during the sixth week. The last two weeks of this period is taken up with only a few visits in testing for a cure. Except for the first forty-eight to seventy-two hours of the time the patients are free from the noisome

urethral discharge associated with forms of treatment heretofore employed.

Acriflavine is more efficacious than the proteid silver compounds. It has, however, special indications and definite limitations. Its action may be thus epitomized: When brought *into contact* with gonococci its germicidal effect is absolute. It is manifestly of no aid in epididymitis. Except that massage may be instituted earlier when the bladder is filled with the dye, it has no direct effect on prostatovesiculitis.

Splenic or Pseudo-leukemia, or What?

E. H. BARTLEY, M. D.

Brooklyn, New York

History of a case: M. H., aged 7 years, male, American parentage. Residence, Great Neck, Long Island.

Family history: Father and mother alive and well. One sister, two years old and well. No miscarriages. Birth normal. Breast fed. The boy was well until the age of eighteen months, when he had an attack of fever and chills lasting for a few days. Five months later he again had a similar attack lasting for a few days. When 2½ years old he had whooping cough of moderate severity. He was well after this until at 4 years of age he suffered with what was thought to be malaria, for about four weeks. He was also treated at this time for what was called rheumatism. The fever was intermittent, appearing on alternate days. The next year he again suffered with malaria for two weeks. It was then noticed that he had an enlarged spleen, and a blood examination showed the malarial plasmodium. He was then well for two years, when it was noticed that after a mild attack of tonsilitis he lost his appetite, complained of pains in his legs and of feeling weak. It was noticed that he did not look well, was pale, losing weight, and had a continued fever. About the middle of December, 1916, the mother brought him for treatment. At that time he had a temperature of 103.5 F. at night with a remission in the morning. Appetite poor, bowels constipated, with considerable gaseous distention. The fever, malaise, palor, loss of weight and appetite and abdominal distention continued for several weeks. Unfortunately a blood examination for the plasmodium was not made until quinine had been given. On January 3rd a blood examination was made but no plasmodia were found. There was found a red count of 4,500,000 and a leucocyte count of 47,000, with a polynuclear count of 5% and 92% of small lymphocytes. The hemoglobin was 75%. The von Pirquet and the Widal were both negative.

Physical Examination: He appeared of normal size for a boy of 7 years. His face had an anemic appearance and somewhat cachectic, but not jaundiced. His mucous membranes were pale. Teeth in good condition, tonsils moderately enlarged with some redness about the crypts. There was no evidence of adenoid growths, or at least not enough to give evidence of obstruction to free breathing through the nose.

Thorax: Lungs normal. A soft mitral murmur was heard which was not transmitted to the left axilla. Probably hemic.

Abdomen: The liver was not perceptibly enlarged. The abdomen was slightly distended but soft and no tumor could be felt. The spleen extended an inch and a half below the free border of the costal cartilages. It was firm and no notches or nodules could be felt. It was not tender.

Glands: These were moderately enlarged in the cervical, axillar and inguinal region, but they were not markedly tender.

Extremities: The upper extremities were normal. The muscles of the lower extremities were tender and there was slight tenderness of the knees, and ankles.

Blood: No plasmodia were found in any one of several examinations. Both the Widal and the von Pirquet tests were negative. The blood culture was also negative. A throat smear gave nothing distinctive.

The most interesting feature of this case is the blood findings.

The first differential blood count was made on January 3rd, or at least a month after the first symptoms of illness made their appearance. At this time the following results were obtained:

Red cells 4,500,000, leucocytes 47,200, polynuclears 5%, eosinophiles 0, small lymphocytes 92%, and large lymphocytes 3%, hemoglobin 75%.

The following tabular arrangement gives the results of six examinations.

		R. B. C.	W. B. C.	Hb.	Polynu- clears	Eosins	Lymphocytes. Small	Large
Jan.	3rd.	4,500,000	47,200	75%	5%	0	92%	3%
Jan.	5th.			75%	11%	1%	92%	3%
Jan.	7th.	4,500,000	30,000	75%	12%	1%	81%	6%
Jan.	14th.		21,000	50%	15%	2%	82%	
Jan.	22nd.	4,300,000	23,000		19%	0	89%	8%
Feb.	7th.		15,000	60%	16%	0	72%	
Mar.	15th.		10,000	85%		0	71%	

Treatment and Course of Disease:

Because of the malarial history he was given Fowler's solution increased to tolerance, with iron and small doses of quinine sulphate. For the abdominal distention he was given Calomel Grs. II to gr. III once a week. He was kept most of his time on an open sleeping porch, except in very cold weather.

His tonsils were painted twice daily with a 20% solution of argyrol, kept up for three weeks or until the cessation of the fever.

The Fowler's solution was continued in smaller doses for some weeks after the cessation of fever, which was about Feb. 1st.

March 15th. The boy seems very much better, is eating well and gaining weight.

April 3rd. Seems well, has become active, and has gained 14 lbs. since Feb. 1st. The spleen is now one inch below the free border of the costal cartilages and is not tender.

The heart murmur can not be heard, and the abdominal distention has disappeared.

March 1st, 1921. He has remained well for five years and has had no return of his malaria.

This boy suffered with malarial infection at least two and probably more years before the present illness.

The onset of this illness was slow and insidious. It was preceded by a sore throat, which was followed by arthritic pains, although the tonsilitis was not severe. Following the pains in the legs, noticed especially on going up-stairs, he began to lose weight, became anemic, languid and weak, and suffered with a low form of fever. He had enlargement of the spleen, gave a negative Wassermann, Widal and von Pirquet tests.

The systolic murmur, which was probably hemic, disappeared on recovery.

The case was then primarily an infection. The immediate infection was tonsilar in origin, unless we suppose the chronic malarial infection was the immediate cause.

That the malarial infection was not the immediate cause is shown by the fact that when the blood was examined in 1914 no such blood picture was found.

We must conclude that the tonsilar infection was the immediate cause of the illness described.

Leukemia in children, of both forms, is usually a fatal disease.

The diagnosis is made by the blood picture.

The diagnosis of this case may be called in question in spite of the blood picture.

The blood picture was certainly that of leukemia but the autopsy is lacking, and the boy is well, to all appearances, five years after the attack.

Some authors regard cases reported as cured as mistakes in diagnosis: at the same time they state that the diagnosis is made by the blood picture. If this recovered case was not leukemia, what was it? That it was a very unusual form of blood disturbance we must admit.

A Case of Gas Gangrene

JOHN H. LONG, M. D.

Brooklyn, New York.

H. F., 50 yrs. Adm. No. 6278. Admitted to Brooklyn Hospital, Service B., Dec. 27, 1920. Discharged, March 6, 1921.

History: Eight days before admission the patient was pricked on the posterior surface of the left fore-arm by a sewing needle which had been on the floor of his home. Soreness and redness at site of wound appeared next day. This was incised by family physician and wet dressing applied. There was a slight discharge and increasing swelling following this. Examination eight days after injury. Left arm and fore-arm from wrist to shoulder swollen, edematous and soggy. Blebs on under surface. Temp. 102. Pulse 130. Resp. 20. Urine neg.

Provisional Diagnosis: Cellulitis left arm and fore-arm. Dec. 28. Under gas anaesthesia multiple exploratory incisions were made.

Many pockets with moderate amount of thin pus and gangrenous superficial fascia underlying the skin on arm and covering intact muscles were found. There was so much destruction of fascia that loss of two-thirds of the skin on arm and fore-arm seemed unavoidable. The incisions were packed with Dakin tubes. Cultures sent to laboratory.

The condition, destruction of fascia and subcutaneous tissue with intact muscles so closely resembled a previous case which I had seen that I considered this a case of Phlegmonous Erysipelas. The cultures returned marked sterile. Following this operation after a preliminary rise the pulse dropped to 90 and the temperature to 99. The wounds bled so much that Dakin solution was stopped but bleeding continued, his condition was getting more critical so that amputation was deemed necessary.

Jan. 4, 1921—Circular amputation just below insertion deltoid muscle. Axilla opened and flaps kept apart by packs. Aerobic and anaerobic cultures were taken. Reports from these cultures were "no growth" from aerobic. "*Bacillus Aerogenes Capsulatus*" from anaerobic.

Jan. 5, 1921—The stump of the divided muscles, i. e., pectoralis major, biceps and triceps showed the typical appearance of gas gangrene—these were removed as freely as possible and axillary artery and vein ligated in apex of axilla. Believing that there was probably some infected muscle in the stump out of reach and that it required all available assistance to save the patient when gas infection had involved the trunk muscles,—the Lederle Laboratories Tetanus Perfringens antitoxin was given intra-venously according to the laboratory directions, i. e., 200cc immediately, 100cc eight hours later, and two 100cc doses twelve hours apart.

Jan. 6, 1921—Blood exam. Hb. 35%. Erythrocytes 1,400,000. Leucocytes 37,000. Polys. 95%.

The patient was distinctly better, quino-formol dressing was used. There was no evidence of gangrene of muscle stumps. Cultures from wound and blood cultures taken these dates showed *B. Aerogenes capsulatus*.

Jan. 8, 1921—Anemia was sufficient so that transfusion 500 citrated blood was given. Three days later, blood examination showed—Hb. 45%. Erythrocytes 2,112,000. Leucocytes 19,600. Polys. 81%.

Jan. 15, 1921—Sudden profuse hemorrhage from stump of axillary artery. Controlled by artery clamp left in place. Given transfusion of 500cc citrated blood.

Jan. 17, 1921—Under gas oxygen anaesthesia the first portion of left axillary artery was ligated through incision parallel to left clavicle just below lower border—as precaution against another secondary hemorrhage. After this the progress was uninterrupted. *Bac. Aerogenes* persisted in wound until it had nearly healed, also cultures taken Jan. 27th showed *B. Aerogenes* on chairs and window-sill, bed clothes and floor of room.

Feb. 24, 1921—Revision of stump.

March 6, 1921—Discharged with small granulating area at inner side of stump. Blood exam.—Hb. 70%. Erythrocytes 4,060,000.

Remarks:

1st.—Usual culture methods showed no growth. Anaerobic luxuriant Welch bacillus.

2nd.—Welch bacillus infection from house-hold needle.

3rd.—Gas gangrene involving the fascia from wrist to shoulder without any muscle involvement.

4th.—Typical appearance of gas gangrene in muscle stump following amputation.

5th.—Secondary hemorrhage ten days after amputation which is very common in these cases.

6th.—Favorable impression of use of Tetanus Perfringens Antitoxin. I have seen equally good results in Welch Bacillus and Oedematiens gangrene where it was evident that complete removal was not done but the majority did not, so that while not convinced that this is a cure I believe that it deserves a thorough trial along with the recognized methods. Cases of Drs. Jennings and Rathbun support this view.

Some Common Errors in the Management of Osteomyelitis

P. A. RENAUD, M. D.

Brooklyn, New York.

THE error most frequently made in managing these cases seems to be in diagnosis. Not infrequently we have admitted to hospital medical wards, supposed cases of rheumatism which prove to be neglected osteomyelitis. This fault is, in the majority of instances, inexcusable, but occasionally we find a case where the signs are misleading, as in the following, admitted to the medical service Sept. 11, 1920, with a diagnosis of rheumatism and not acutely ill.

S. W. Male, age 9. Complaining of pain and swelling of right knee. Temperature 103, pulse 120, respirations 20. Comparative mensuration over center of patella, showed right knee 31.5 cm., left 27.5 cm.; about the thigh 7 cm., higher right 31 cm., left 25.5 cm. There was some heat and redness around and above the right knee-joint. The routine general examination of the head, chest, abdomen and reflexes, failed to reveal any abnormalities. The history was interesting and misleading. Eight days previous to admission and several days after a slight injury to knee caused by striking it against an open door, the patient complained to his mother of pain which gradually became more severe. Three days later the family physician was consulted and found, together with the swelling of the knee, some slight puffiness of the right ankle. The patient also complained at this time of pain and stiffness of the fingers of his right hand. They were not swollen. The child was put upon antirheumatic treatment, but for five days showed no signs of improving. On the fifth day he was sent to the hospital and admitted to the medical service where the treatment was continued for three more days and an X-ray report showed the possibility of an epiphysitis with evidences of slight rarefaction of bone substance extending upwards for one inch on the inner side of the shaft of the femur from the epiphyseal line. He was then transferred to the surgical service. A blood examination on the first day

showed a leucocytosis of 36,000 with 84% polys. Three days later, or on the day he became a surgical case, the leucocytes numbered 22,400 with 80% polys., evidently showing some improvement. The patient no longer complained so severely, the temperature had fallen to 99.6, the usual markedly septic appearance found in most cases of osteomyelitis of the femur was not present, and we decided to wait for confirmatory roentgenographic evidence. This came very decidedly two days later when a plate showed a more marked change in the bone area previously suspected, but no further involvement. At operation that day the periosteum was found separated from the bone and distended with pus, for two inches up the shaft of the femur above the internal condyle. Soft bone extended downwards to the epiphysis and as much of it as could be removed without endangering future growth of the bone was chiseled and curetted away. This case has been reoperated six times since for removal of sequestra and still has a discharging sinus. Had it been possible or advisable to remove all the diseased bone the patient would probably be completely healed. X-ray pictures show the cavity in the bone is filling and the delayed recovery now seems assured. In this case as in others like it, we show too much inclination to wait for a positive diagnosis and at times a tendency to do too little surgery. The following case illustrates the latter.

S. D. Female. Age 20 mos. Admitted September 23, 1920, by ambulance surgeon, with a large deep abscess on the external surface of her left thigh. She was taken to the operating room immediately, the abscess incised and evacuated of thin yellow pus without odor which gave a pure culture of staphylococcus. The cavity completely surrounded what might be called the upper half of the middle third of the femur. The periosteum was not raised and no bare bone could be discovered by digital examination or probing. Several Dakin's tubes were inserted. Unfortunately the interne in charge was unable to see the parents to get a history until the fourth day, when the parents came in, signed a release and took the child home. Nine months later, June 9, 1921, the child was readmitted, having been recommended by a physician, recently consulted. Two good X-ray pictures were brought in with the child, which showed a localized destruction of the shaft of the femur at the site of the old abscess, and what appeared to be a fair sized sequestrum. The leg was reopened and considerable soft bone removed. Dakin's tubes were inserted and the three inch incision left wide open. At present the wound is filling in a satisfactory manner, but two weeks ago had to be opened for the removal of several small pieces of sequestra. It, however, shows the common tendency of this class of wounds, to granulate rapidly externally, or rather superficially, and close over an unfilled cavity in the bone. This bothersome condition is overcome by packing into the bottom of the cavity a number of Dakin's tubes, sufficient to fill it completely, and more than needed for simple purposes of irrigation. This method seems to be preferable to the older one of keeping the wound surfaces apart by packing with gauze. The small holes in the Dakin's tubes show less tendency to become blocked and thus more solution is allowed to come in contact with the entire wound surface, which remains cleaner. Undoubtedly this child was suffering with osteomyelitis of her femur when first admitted to the hospital. She was not very acutely ill when operated, and could have withstood the added amount of surgery necessary to open the medullary canal. This would probably have revealed

the presence of the disease of the bone and prevented the possibility of further involvement even if the condition of the patient then did not warrant a more radical surgical procedure. This fault is not an uncommon one. Should we always open the medullary canal in similar cases where pus is found surrounding bone whether covered by periosteum or not we would seldom do harm and very often much good.

Report of a Case of Pedunculated Fibroma of the Uterus, Complicating Pregnancy at Term; Twisted Pedicle, Post-Peritonitis, Death

JOSEPH A. DRISCOLL, M. D.

Brooklyn, New York.

Mrs. A. B., female, age 34, nativity U. S., was admitted to the Obstetrical Department of St. Catharine's Hospital, January 12, 1921.

Family History. Parents living and in good health.

Past Personal History. Had measles, chicken-pox, whooping cough and mumps as a child. Adult surgical and medical history negative.

Menstrual History: Menstruation began at 17 years; always regular, every 28 days; duration, 3-4 days; 2 napkins a day. Occasionally has suffered from premenstrual pain. Last period May 11, 1920. Felt "life" in September, 1920.

Marital History: Married April 20, 1920.

Obstetrical History: First pregnancy now.

Present Illness. On December 29, 1920, patient noticed a mass in the left upper quadrant of the abdomen. It felt hard and was the size of an orange. It was never noticed before the above date. The mass was tender to the touch. A dragging sensation was experienced when patient was up and about. While up, the mass assumed a lower position in the abdomen on the left side, and soreness became more marked. Upon lying down, the soreness and dragging sensation disappeared. The mass gradually increased in size. On New Year's night the patient was out walking when she was seized with a sharp pain in the region of the mass. She hurried home and sat on a chair. The pain became more marked, compelling the patient to flex the body. The pain persisted up to 4 P. M. the following day when it subsided. On January 10, while out shopping, she again was seized with a sharp pain and hastened home. The pain continued until the time of her admission to the hospital. On lying down, the patient noticed that the mass moved with the change of position, but she was comfortable while in bed. As soon as she sat up or walked about pain was experienced. Before urinating, the patient claimed the mass was tender and larger. Upon passing urine, the pain was relieved and the swelling

* Department of Obstetrics-Gynecology, St. Catharine's Hospital.

became smaller. This was noticed since January 4, 1921. It was constant with each passage of urine.

Associated Symptoms: Vomiting, not at all. No chills, fever, sweats or headache. The patient was urinating about five times a day, a pint being passed each time. She passed about one pint of urine at night. She had a whitish discharge daily from the vagina since marriage; no odor; moderate in amount; no burning.

Habits: Bowels constipated. Sleep good. Appetite good.

The general physical examination was that of a well-developed female, who was not acutely ill.

Abdomen: Inspection, Abdomen distended. Uterus ovoid, 8 months' pregnancy, displaced to right and reaching costal margin on the right side. Two fingers to left of umbilicus, is a kidney-shaped mass, which extends from about two fingers below the umbilicus, to three fingers below ensiform. Palpation. Uterus ovoid to right. Fetal parts palpable. Mass in the left upper quadrant is hard, tender and kidney-shaped, about 7 inches long and 4 inches wide. Moves freely in upper portion of abdomen; tender on moving. When the patient sat up, the mass was felt lower down. On moving the mass, the uterus was not moved, nor was there any pain experienced over the uterus. The mass was smooth and not attached to the skin. Percussion. Dulness over the mass. Auscultation. Mass silent, over uterus; umbilical souffle heard at umbilicus. Fetal heart 137, strong and regular; just below umbilicus.

Diagnosis: Abdominal tumor, complicating pregnancy in primipara.

Opinion: Tumor is:

A. Pedunculated fibroid.

B. Ovarian cyst on long pedicle.

Advise: Observation; daily fetal heart; full diet; frequent temperature; blood count; urinalysis; consultation with Chief of Department of Obstetrics-Gynecology, Dr. Charles A. Gordon.

The temperature, pulse and respiration were normal. The blood count showed a slight leucocytosis, 10,000; otherwise negative. The urine was normal.

January 13, 1921—Dr. Gordon: Findings confirmed.

Opinion: Intra-abdominal tumor; probably pedunculated fibromyoma of uterus.

Advise: Examination by urologist, as this may possibly be an ectopic kidney.

January 14, 1921: Dr. John F. Griffin, urologist, called into consultation, and advised cystoscopic examination, catheterization of ureters and pyelogram to determine definitely whether tumor is kidney or not.

January 16, 1921—Dr Griffin: Owing to the low position of the fetal head, impossible to pass cystoscope into the bladder without causing too much traumatism. Abdominal examination inclines me to believe that the mass may be kidney with convex border attached to the uterus and kidney pedicle, causing uterus to be kept more to the right side.

Opinion: Would wait until after delivery before making further investigation.

At this time, the patient was in good general health, and there was apparently no cause for alarm. The shape, size, location and consistency of the tumor mass, resembling a kidney so much, contraindi-

cated exploratory laparotomy. For this reason, I determined to bide my time.

On January 18, 1921, I did a vaginal examination of the patient, as she wanted to go home, and found the cervix four fingers dilated; membranes intact; occipito left anterior presentation; no pains. The pelvic measurements were normal. The fetal heart was in the left lower quadrant and had varied between 132 and 142 for the previous six days. Shortly after this examination, the patient went into active labor and was delivered at 4 P. M., January 18, 1921, of a live female child, in good condition, slightly premature—about 8½ months; weight, 6 lbs., 14 oz. The placenta was allowed to separate and was expressed by the patient at 4.25 P. M., complete.

Three hours after delivery, the patient had a chill—temperature, 102; pulse, 94; respiration, 24, became restless and complained of abdominal pain. At 6 o'clock the following morning the chill was repeated; patient complained of pain in the right side; lochia profuse; felt like vomiting. The tumor mass had shifted entirely to the right side and was well down in the flank! It was exquisitely tender to the touch and felt cystic. Movements of the diaphragm caused pain in the tumor mass. The chest and heart were negative.

Advise: Emergency blood count with reference to operation.

Blood Count: Erythrocytes, 4,224,000; leucocytes, 21,000; hemoglobin, 65%; polys., total, 94%; large lymphocytes, 2; small, 4.

January 20, 1921—Dr. Gordon: Patient acutely ill; crying with pain. Pulse good, rapid; face flushed; tongue moist; abdomen distended; coils of intestine seen through stretched abdominal wall; abdomen tender, but not rigid. Mass in right side, apparently extending into pelvic region on same side.

Diagnosis: Kidney and spleen seem to be ruled out by the migration of the tumor mass from the left side to the right. The acute abdominal pain cannot be disregarded. Exploration is indicated, notwithstanding the gravity of such procedure at this time. The condition is, I think, one of ovarian cyst with twisted pedicle, or gangrenous fibroid tumor.

The patient was now desperately ill—temperature, 104.3; pulse, 116; respiration, 24, with evidences of acute peritonitis. I confirmed the diagnosis of Dr. Gordon and decided to operate.

Operation: At 5:44 P. M., January 20, 1921, the patient was operated under gas-oxygen anesthesia.

Findings: The abdomen was opened to the right of the umbilicus and considerable turbid fluid was found in the peritoneal cavity, with marked distention of the intestine. Exudate adherent in spots to intestine. Parietal peritoneum well injected. The appendix was long, congested, kinked at the tip and retrocecal. In the upper right abdomen, under the liver, a kidney-shaped tumor, originating near the left cornu of the uterus, at the origin of the round ligament, on a pedicle, 2 inches wide and 1½ inches in length, with one complete twist, was found. The tumor was markedly congested, soft in spots and very red. The uterus was normal in appearance, with no signs of peritoneal inflammation.

Procedure: Tumor removed flush with uterine tissue. Stump arteries tied, and stump fairly well covered with peritoneum. Omentum pulled down to cover area of tissue resection in uterus. Culture of free fluid taken. Two Penrose drains placed in lower angle of

wound to pelvis, one on the right side, and one to the left and behind the uterus.

Postoperative Diagnosis: Fibromyoma of uterus; twisted pedicle; spreading peritonitis.

At 9 P. M., the patient was resting quietly. The temperature had dropped from 104.3 before operation to 99 at this time. The patient was put on a Harris drop with 5 per cent. glucose and sodium bicarbonate; morphin every 3 hours; Fowler position; no fluids by mouth. At 1 A. M. the following day the patient's condition was exceptionally good, and she was sleeping quietly. Later the same morning, the patient was much worse—the temperature was elevated, pulse very rapid; she complained of pain and thirst; the abdomen was greatly distended; and she was not absorbing the drip. Her mentality was very acute. The drip was discontinued and 6 ounces of 5 per cent. glucose and 5% bicarbonate of soda were placed in the rectum every 4 hours. The patient was exceedingly anxious. The following day she had absorbed 18 ounces of fluid in twenty-four hours. Her pulse was good, but the temperature persisted in climbing. A hypodermoclysis of 500 c. c. of normal saline solution was given under each breast. Before this was done, the tongue was dry and the throat parched. After the clysis the tongue became moist and the throat felt much better. Pulse rapid; good quality. The distention seemed lessened. Patient stuporous.

On January 23, 1921, dressing removed from abdominal wound. It was partially saturated with a brownish fluid. The drainage tubes were slightly drawn out. A gloved finger was introduced into the wound to establish better drainage. Wound dressed.

The temperature went persistently upwards and at 2 P. M., January 24, 1921, with a temperature of 107 and a pulse of 130, the patient expired.

Pathological Report: Dr. Martin reported that the culture of fluid from the abdominal cavity was sterile, and that the tumor consisted of fibrous connective tissue. On section, there were present hyaline changes. No malignancy evident. The pathological diagnosis was fibroma with hyaline degeneration.

Consent for an autopsy was obtained, to determine if drainage had been properly established, but through an unfortunate misunderstanding on the part of the undertaker, the body had already been embalmed and the abdomen filled with embalming fluid.

Report of a Case of Gastro-Jejunal-Colonic Fistula

MEYER GROLLMAN, M. D.

Brooklyn, New York.

THE paucity of cases reported and rareness of occurrence prompts the report of this case.

Mr. L. R., American, aged 26, salesman, single, was admitted to medical service of Dr. Blatteis at the Jewish Hospital, Brooklyn, N. Y., on January 26, 1921.

Chief Complaints: (a) Epigastric pain and distress. (b) Nausea and vomiting. (c) Persistent diarrhea. (d) Increasing weakness especially of lower extremities. Duration of present troubles one year.

Family History: Irrelevant to present illness.

Past History: At six years of age scarlet fever and pneumonia. At sixteen operated for acute unperforative appendicitis. Made complete uneventful recovery in about two weeks. At eighteen patient commenced having gastric disturbances. His complaints started with epigastric pain and distress about three hours after eating. He suffered from belching and heart burn. A few months later he started vomiting. Despite palliative treatment and strict dieting patient's symptoms persistently increased in severity and frequency. Patient was advised to enter hospital. He entered the Mt. Sinai Hospital of N. Y. C. on March 15th, 1914. On operation a single callous ulcer of the duodenum was discovered. Gastro-enterostomy was performed with occlusion of the pylorus. Patient made excellent recovery and was discharged from hospital Mar. 27, 1914. For several months after leaving hospital patient felt well as long as he followed the diet prescribed by his physician. He returned to his work as salesman.

About one year after the gastro-enterostomy his symptoms returned although he committed no indiscretion in eating. His severe epigastric pain and distress; his belching and heart burn as well as the vomiting returned with added vigor. He gave up his work and entered the Mt. Siani Hospital for treatment. He was observed at the hospital and diagnosis of Recurrent Ulcer was made. Operation was advised. He refused operation at this time and left the hospital. Despite all medical treatment and dieting his suffering became greater and he again entered the Mt. Sinai Hospital.

Patient was operated Oct. 17th, 1916. A stenosis of the Gastro-jejuno-stomy was uncovered. (The underlying cause in all probability being a Gastro-jejunal ulcer.) The previous anastomosis was separated and a large Gastro-jejuno-stomy was performed. He made a complete uneventful recovery and was discharged from the hospital as "recovered" November 7th, 1916. For the following four years patient observed the prescribed diet and was free from all symptoms. He gained some weight and attended regularly to his routine work.

Present Illness: (a) For the past year patient has been complaining of severe epigastric pain and distress. At first pain and distress came on after meals but now the trouble is persistent regardless of ingestion of food.

(b) For the past several months has had intermittent periods of diarrhea. His bowels have been moving six and seven times a day. The stools are watery and light colored and on a few occasions he thinks that he has recognized food in the stools very recently ingested. When lying on his left side would often have tenesmus and desire to move his bowels. When lying on his right side often felt nauseated.

(c) Has had almost constant nausea with frequent attacks of vomiting for several months. Recently flatulence has been added to his discomforts.

(d) His legs have been swollen for last few months. Recently his abdomen has become markedly distended and interferes with his respiration.

Physical Examination: Patient is an emaciated young man about 25. He appears to have been ill for long time. Rather small stature.

Head: Scalp; eyes; ears; nose; throat; teeth; cervical glands show no deviation from the normal.

Thorax: Patient is narrow chested; respiration is shallow. Retraction of supra and infra-clavicular spaces. *Percussion* reveals dullness from the fourth intercostal space to the base of the lungs on the right side and to a lesser degree on the left side. *Auscultation* reveals markedly diminished breath sounds below the fourth ribs. No rales or adventitious sounds are heard. Heart is displaced slightly upward and to left. No apparent enlargement, no murmurs are heard. Sounds are rather booming. The examination of the chest gives us the impression that there is some intra-abdominal pressure forcing the diaphragm upward.

Abdomen: Symmetrically enlarged. Abdominal wall is tense. Skin is parchment like. The superficial veins are pronounced. No visible peristalsis. *Percussion* shows that the liver dullness is absent (displaced upward). Spleen is not palpable. No masses, no herniae palpable. Distinct fluid wave, shifting dullness and flatness in the flanks give positive evidence of fluid in the peritoneal cavity.

Scrotum: Markedly edematous.

Extremities: Legs are extremely swollen.

Reflexes: O K.

Clinical Data: Temperature 98.6. Pulse 90. Respiration 28. Weight 100. Urine Analysis: Sp. gr. 1030. No albumen. No sugar. Microscopic examination is neg. Blood: Wassermann is negative. Chemistry—within normal limits. W. B. C. 6,800. Differential: Polymorph. 51%. Lymphocytes 48%. R. B. C. 3,200,000. HGB. 67%. Basophiles 1%. Blood pressure: Systolic 90. Diastolic 50. Gastric Analysis: Total acidity 67. Free hydrochloric 37. Feces: No blood. No parasites. No Tbc. No food particles.

X-Ray—Stomach: The pylorus is patent. Bismuth passes readily through, outlining an apparently normal bulb. A coil of lesser bowel is adherent to the greater curvature of the stomach but no gastro-enterostomy is demonstrable. The gastro-enterostomy has probably closed and the pylorus has resumed its normal function.

Colon: No communication between colon and stomach demonstrable. Appears to be some constriction at the middle of the transverse colon with dilatation at the proximal and distal ends.

Thorax: No fluid; no pleural thickening.

Patient is treated along general medical lines. Despite diuretics and limitation of fluids his ascites, edema of the legs and scrotum are increasing. Paracentesis abdominalis performed three weeks after admission. About 2200 c. c. of yellow turbid fluid obtained. The circumference around the abdomen is decreased from 34½ in. to 27 in. Patient feels considerably better after tapping. He is up and about the ward.

When patient was admitted to hospital he was constantly nauseated and vomited. For four weeks after his admission the nausea persisted but the vomiting seemed relieved. At the beginning of the fifth week patient's general condition is considerably improved but his nausea is worse than ever. To relieve himself of the persistent nausea, epigastric pain and distress patient induces vomiting. The vomitus consists of yellow creamy semi-solid mass with a decided fecal odor.

The constant discomfort and increasing nausea, vomiting, epigastric pain and distress warrant surgical interference since his general condition is much better.

Patient is transferred to the Surgical Service of Dr. William Linder and operated upon March 14th, 1921, by Dr. Linder.

Exploration reveals the posterior wall of the transverse colon is intimately adherent and communicates with the gastro-jejunostomy. The gastro-jejunostomy is stenosed admitting only the tip end of the small finger. At the site of the anastomosis there is a definite callous ulcer (Gastro-jejunal) which has become adherent and has perforated through the posterior wall of the transverse colon, producing a gastro-jejunal colonic fistula.

There is considerable serous fluid in the abdominal cavity. The transverse colon is adherent to the abdominal wall at the site of the scar of the previous operation. The gall bladder, pylorus and duodenum are apparently normal.

Procedure: The colon is separated from gastro-jejunostomy; the anastomosis between the stomach and jejunum is divided. The opening in the transverse colon is repaired in the usual manner; the pylorus being patent and the duodenum free from disease there is no longer necessity for gastro-enterostomy and therefore the stomach and jejunal apertures are individually repaired in the regular way.

Patient made subsequent uneventful recovery and was discharged from the hospital April 5th, 1921, free from symptoms and having gained some weight since operation.

Patient was interviewed about two months after operation. He appears quite robust, has gained eighteen pounds since leaving the hospital and has no complaints.

In reviewing the history of this case it is apparent that we had a duodenal ulcer, to begin with, which was recognized and properly treated by gastro-jejunostomy. The recurrence of the symptoms about one year subsequent to the gastro-enterostomy leads one to conclude that the patient was suffering from a gastro-jejunal ulcer.

In the experience of the surgical services of Drs. Wm. and John Linder at the Jewish Hospital of Brooklyn, N. Y., we have learned that if wide gastro-enterostomy is performed, precaution being taken to avoid kinking or axial rotation the gastro-enterostomy remains patent and functionates. In our experience *stenosis* only develops in those cases where subsequent *ulceration* has occurred or the gastro-enterostomy has been improperly executed.

The probability is, that the symptoms this patient suffered from one year after his first gastro-enterostomy were due to a gastro-jejunal ulcer to which the gastro-jejunal stenosis was secondary.

The procedure adopted in this case by Dr. Linder was to remove the ulcerated tissue (gastro-jejunal) and since the pylorus and duodenum were patent, free from ulceration and to all appearances normal there was no further need of gastro-enterostomy. He therefore repaired the apertures of the three hollow viscera, thereby re-establishing the normal continuity of the gastro-intestinal tract.

* The writer is indebted to Dr. William Linder for the privilege of presenting this case.



Changes in the Journal

READERS of the Journal will have noticed certain changes in the makeup of the magazine. Beginning with the July number, the heavy rough finished paper was displaced by thinner "super" stock. While this makes a thinner book, it has the advantage of being lighter, more compact and giving a better printing surface. It also permits much more economical handling and allows the placing of illustrations of any sort wherever desired. Although the book is less bulky, it loses nothing except size and gains much in many ways.

Another change is the institution of case reports as a permanent feature. The question has been asked "How does the Journal justify its existence?" And it has not always been an ill natured slur, either. Apart from being the repository of the Associated Physicians of Long Island for their transactions, minutes, roster and by-laws and blossoming with perennial blooms of editorial elegance, it has been fortunate in publishing a large variety of original articles that have reflected painstaking care on the part of their authors. That there is diversity of opinion as to the function of a medical journal is evidenced by the diversity of medical publications. One prints only the most technical of laboratory reports, its opposite the most bizarre of clinical experiences. One confines itself to a narrow field, another skims the entirety of medical writing. Now, there is one function of the medical journal that is not often emphasized and that is its capacity for educating ordinary doctors into medical writers. No man realizes his shortcomings in composition until he has set down his thoughts on paper and then read them aloud. It is then that his flowery verbal report stares him in the face and says "You did it. Is it true?" and, if he is a real man, he starts to prune the verbosity, correct the logic and rearrange the subject until it is clear and convincing to him. I think none will deny that the habit of reducing one's observations to writing leads more surely to logical thinking, deliberative judgment and convincing expression than any other method unless it be viva voce discussion among men who are big minded enough to point out our errors. This is especially true if one forms the habit of moulding each sentence before writing it.

I do not wish it understood that I favor the constant bombardment of the profession with reprints that are obviously for advertising purposes only. No. But I do advocate the habit of careful notes elaborated into clinical reports. These serve a twofold object. The writer is stimulated to a more thorough study of his cases, habits of methodical study and closer observation are intensified and he is a

better physician therefor. And the man who reads the record of such a case can draw his own conclusions and deductions, unbiased by the author's hypothesis. Therefore the Journal plans to publish case reports as they can be secured and to make well-prepared case reports a feature of every issue; and if one physician can thereby be led to become a more careful clinician, the reason for the Long Island Medical Journal—or at least one reason—is made clear.

H. G. W.

Mr. Coler on the High Cost of Babies

EVER since Mr. Bird S. Coler first loomed on the political horizon the people of this city, and even a few in Hoboken, N. J., so it is rumored, have spent much of their time listening for the words of wisdom that he has all too rarely uttered for their behoof. As a deep thinker Mr. Coler is like Cap'n Cuttle's watch, "ekalled by few and excelled by none," even though it had to be set back about quarter of an hour morning and afternoon. The Brooklyn Daily Eagle, that upright, clean and truthful family newspaper, under date of August 12, 1921, quotes him as follows:

OBSTETRICIANS' BIG FEES LOWER BIRTH RATE, SAYS COLER

Commissioner Decides to Open City Hospitals to People Earning Moderate Salaries.

That the present high fees demanded by obstetricians lower the New York City birth rate among the middle class was stated by Commissioner Bird S. Coler of the Department of Public Welfare today. Commissioner Coler has decided to open the city hospitals to people whose salaries range between \$2500 and \$5000.

"The privately owned hospitals of Brooklyn and Manhattan have become purely business institutions," said the Commissioner. "The poor can get the best of care in Kings County, Cumberland Street, Greenpoint and Bellevue Hospitals and the rich patronize the privately run hospitals. It's the man and woman on a small or medium size salary who is up against it in regard to medical care. The average bookkeeper, clerk or employee of a business house simply cannot afford to pay the present hospital prices.

"For this reason I am admitting people to the city hospitals at a charge of \$2.50 a day. The private hospitals are not interested in the patient who wants to keep his self respect and pay a moderate fee. When these institutions conduct drives in the name of charity it is only with the object of having some sort of service in order to keep their internes and nurses. They are really not interested in the welfare of the people."

"Questioned as to the \$150 or \$250 fee charged by Brooklyn obstetricians in addition to their bills for pre and post-natal care, Commissioner Coler said that such charges kept the birth rate down in the homes of medium salaried men.

"This group is too proud to accept charity—in fact, it needs no charity. Yet it cannot pay the prices demanded at the private hospitals, and so the coming of a baby is regarded as a calamity. This is due to the prices demanded by doctors and private hospitals."

Ye Gods! What Wisdom! Even Solomon in all his glory had no such insight into the dwindling birth rate. Nor did such pearls of truth fall from his lips. It used to be said that the laborer is worthy of his hire. Mr. Coler says, the laborer shall pay no higher. He therefore opens the charity hospitals, whose medical staff *receive no pay*, and offers their services free to those who can pay the city \$2.50 a day. Anyone can afford to be generous in such a way. And he says that the private hospitals care nothing for patients who have no money. How does he explain the fact that the private hospitals are turning away patients for whom they have no room, and are besieged by applicants who are properly city hospital cases but *who do not want to go there?* It must be because the private hospital gives something that his city institutions do not supply. And is it true, Mr. Coler, that all obstetricians charge from \$125.00 to \$250.00 for their hospital accouchements? Your statement carries the impression that this is generally true. Is it? Have you authority for such a statement? And did the Brooklyn Daily Eagle, that fair minded public mentor, investigate and verify all these "facts"? In another part of his interview the statement is made that ambulance service has been abandoned by the Brooklyn Hospital (a private institution) and an extra burden placed thereby on Cumberland Street, a city hospital. Tax payers should be interested to know what proportion of the upkeep of the ambulance service is paid by the city and what deficit has to be met by the private hospital, *a net contribution to the city budget for which no credit is received*. It may be said without fear of contradiction that, although the average citizen believes the ambulance service is part of the city welfare work and is paid for out of the city funds, in the case of the private hospitals, the deficit will run from \$1000.00 a year up for each ambulance in commission. Further, whatever the city pays the private hospitals, for the occasional city case that the city permits in its wards is far below the actual per diem cost which now approximates \$3.50 a day! Of course Mr. Commissioner Coler says nothing of the source from which his deficit of a dollar a day on each self respecting, proud, middle class, expectant mother is to be made up. The tax payer does it and never knows. But then, a big political fight is on and any head that shows must be hit.

H. G. W.

Form 701

THE JOURNAL has received "Form No. 701 (anti-scandal literature)" printed in red ink and signed for the Committee, League of Natural Rights, by Dr. H. N. Davis, Business Agent. It came from Buffalo, N. Y. Supposedly written in English, it is actually composed in some tongue that does not construct its sentences according to the

usual English syntax. Verbs are uncommon, subjects often missing and the person and number change *ad lib.* The substance is a fervid appeal for public prostitution under a form that it calls "Municipal Segregation." Here is a sample sentence containing the gist of the matter. "Realizing that now, when soldiers and workers whom both cooperated in good cause, are looking forward for better prospect and new incentive for a reformed administration to govern and regulate the sexual rights as a legitimate understanding that each one, is in ardent desire for some form of happiness!"

We are to understand, it seems, that commercialized vice, recognized as such and sternly repressed during the crisis of the war, is really a natural right, is inevitable, and in the absence of compulsory marriage laws, a road to supreme happiness. Indeed, the "Notice" naively suggests that if the National Government should institute a Yoshiwara system, there would be less difficulty in enforcing the Mann Law! The idea that sexual continence is desirable, that the upbuilding of the moral character is impossible where such license as is here demanded is indulged in and that venereal disease can be controlled under any plan that makes promiscuous sexual intercourse easy has evidently not occurred to the writer of this notice. No primitive cave man could be more frankly bestial (or more ungrammatical). It is the scum of bolshevistic unrest and demands careful investigation because it is a salacious appeal to the worst in human nature.

H. G. W.



CORRESPONDENCE

TO THE EDITOR:

I have just read with much interest Dr. Monaghan's review of the development of the New York City Department of Health. It is a record to be proud of in many ways.

However, two omissions rather surprise me. No mention is made of Dr. Stephen Smith, still living in his ninties, who was one of the prime movers in the organization of the Metropolitan Board of Health in the late sixties.

On page 194 of the journal Dr. Monaghan states that "During the year 1870, for the first time since 1522, the city was attacked by yellow fever." I have before me the somewhat rare and interesting "Annual Report of the physician-in-Chief of the Marine Hospital at Quarantine." "Presented to the Legislature February 4th, 1857." It is largely devoted to the epidemic of Yellow Fever that occurred during the Summer and Autumn of 1856. It is true that only three or four cases actually occurred within the limits of New York City as then constituted, but according to the writer of the report, "the fearful presence of a most dread pestilence at the very portals of our great commercial emporium justly excited alarming apprehension."

There were 38 reported cases in the Marine Hospital grounds, 33 in the villages of Staten Island, and 147 in Bay Ridge and Ft. Hamilton. Many mild cases undoubtedly escaped detection.

In the old New Utrecht cemetery there stands a handsome granite monument erected by the grateful residents of the afflicted section to the memory of Drs. James DeBoise and F. L. Crane who sacrificed their lives in their day and night attention to the victims of the disease. They were honored members of the Medical Society of the County of Kings, but there is nothing to commemorate them in our library building. The late Dr. Agrippa Bell told me many interesting anecdotes of his experience during the epidemic. He had been in the Marine Hospital Service in the south and so had had a large experience with Yellow Fever. At his instigation some years ago I collected the data and photographs for a brief historical report that is still to be written.

LOUIS C. AGER.

MEDICAL BOOK NEWS

Edited by JAMES M. WINFIELD, M. D.

All communications, books for review, etc., should be addressed to the Editor of this Department, 1313 Bedford Ave., Brooklyn, New York

September, 1921

3 Pages

RATIONAL TREATMENT OF PULMONARY TUBERCULOSIS.

RATIONAL TREATMENT OF PULMONARY TUBERCULOSIS. By Charles Sabourn, M. D. Authorized English translation from the Sixth French Edition. Philadelphia, F. A. Davis Company, 1921. 440 pages. 8vo. Cloth, \$3.50.

A book, of which six editions have been required in its original language revised to date and translated into English, on treatment alone of a disease, carries with it a right to careful consideration. Careful consideration of "Rational Treatment of Pulmonary Tuberculosis" will show the need of this book and compel one to endorse its reputation as fully deserved. From his life work of thirty years in sanatoria for patients with pulmonary tuberculosis the author has obtained an experience that should qualify him to speak with authority, and in no uncertain tones does he proclaim his faith, or lack of faith, in the different means of treatment. 440 octavo pages on one subject tells the careful detail with which he describes the use of remedies, the factors that interfere with success, the results which he has obtained and which anyone may confidently expect. Comparatively very little use is made by him of medicinal agents, of the tuberculins, and save for hemoptysis, of such mechanical measures as artificial Pneumothorax. To the subjects of feeding, overfeeding, the disorders of the stomach and intestines, are devoted 53 pages, and it is not too much, although one may feel that true tuberculous disease of the intestines is much more frequent and should be more deeply impressed than the "pseudo"—forms here described. All approved factors in treatment receive attention, including, as may be expected from his position, the usefulness of the sanitarium, not only for therapeutic but for educational and self-disciplinary purposes. Climate is dismissed in the brief space it deserves and altitude as an insignificant element. "Elevation plays only a secondary rôle."

The author has added chapters on social hygiene, marriage of tuberculous people and child welfare which increase the interest in the book though the reader may disagree with

some of the author's opinions on these subjects. "To allow maternal feeding, *as a rule*, in every instance in which pregnancy has been brought to a successful conclusion" (p. 400) and "the longer lactation, even partial, can be kept up, the better" (p. 401) will not receive unanimous approval. The added danger of direct infection from a mother's bacilli-laden sputum was probably too apparent to need mention by the author.

The book is written in English of a higher grade than most works translated into our language. It is written by a man who evidently is a master of his subject, and it will prove of great assistance and encouragement to the physician who wishes to take personal charge of his tuberculous patients either in their homes or in a sanitarium.

T. A. MCGOLDBRICK.

DIAGNOSTIC AND THERAPEUTIC TECHNIC.

DIAGNOSTIC AND THERAPEUTIC TECHNIC. A Manual of Practical Procedures Employed in Diagnosis and Treatment. By Albert S. Morrow, A. B., M. D., F. A. C. S. Third Edition, entirely recast. Phila. & London, W. B. Saunders Company, 1921. 894 pages, with 892 illustrations. 8vo. Cloth, \$8.00.

The second edition of this work covers a large field. Many subjects, such as radiographic diagnosis are scarcely touched upon and might just as well have been omitted without detracting from the value of the book. Under examination of the heart, electrocardiographic and polygraphic diagnosis are entirely neglected. Otherwise the book can be recommended to the student and practitioner. The illustrations are commendable.

HENRY JOACHIM.

THE MAJOR SYMPTOMS OF HYSTERIA.

THE MAJOR SYMPTOMS OF HYSTERIA. By Pierre Janet, Ph. D., M. D. Second Edition, with new matter. New York, The Macmillan Company, 1920. 345 pages, illustrated. 12mo. Cloth, \$2.75.

Fifteen lectures given in the Medical School of Harvard University.

Janet is probably the greatest living authority on Hysteria. He has already written extensively on this subject and his theory of dissociation is well known and is, in fact, the chief principle upon which the psychoanalytic school bases its mechanisms. Janet, while admitting a sexual origin in many cases, does not hold that this is the chief and only cause.

In this volume he discusses in detail the many major manifestations of hysteria. He defines hysteria as "a form of mental depression characterized by the retraction of the field of personal consciousness and a tendency to the dissociation and emancipation of the systems of idea and functions that constitute personality." Hysteria is a depression, an exhaustion of the higher functions of the encephalon.

The book is well written and contains valuable information upon this perplexing malady.

S. R. LEAHY.

PRACTICAL CHEMICAL ANALYSIS OF BLOOD.

PRACTICAL CHEMICAL ANALYSIS OF BLOOD. A Book Designed as a Brief Survey of this Subject for Physicians and Laboratory Workers. By Victor Caryl Myers, M. A., Ph. D. St. Louis, C. V. Mosby Co., 1921. 121 pages, illustrated. 8vo. Cloth, \$3.00.

This small volume should appeal alike to physicians and laboratory workers. The latter will find herein a system of blood analysis which is especially adapted to clinical work with complete and clear directions for the performance of the various determinations. The list includes all of the non-protein nitrogenous constituents of the blood as well as sugar, cholesterol, carbon dioxide and chlorides. The former will find a clear, practical discussion of the use and interpretation of chemical analysis of the blood. The text is elucidated by many tables of analyses in hospital cases.

E. B. SMITH.

DREAM PSYCHOLOGY.

DREAM PSYCHOLOGY: PSYCHOANALYSIS FOR BEGINNERS. By Dr. Sigmund Freud. Authorized English translation by M. D. Eder. New York, The James A. McCann Company, 1920. 237 pages. 8vo. Cloth, \$3.50.

Psychoanalysis, a method to get at unconscious motives for conduct, is the study of the unconscious mental life. And as Freud says, the *via regia* to the unconscious is the study of the dream. The latter, though appealing but little to the student of organic pathology, is of prime importance to anyone investigating the psyche. The dream develops out of the past, and has nothing to do with the future of the individual.

Freud's foreconscious embraces all the remnants of the previous day,—consisting of the problems, cares and impressions which continue their activities during sleep. Here also belong objective sensory stimuli.

The unconscious consists of our historic past. The infantile element is the most potent impulse in the foundation of dreams.

The unit of the Freudian psychology is the unconscious wish. An accumulation of excitement causes pain; relief of this tension causes pleasure (gratification.) The striving for pleasure is the wish.

The dream is the result, not merely of a wish, but it is a compromise between the wish and the repressing forces (culture). In the adult an unfulfilled wish alone will not create a dream. Infantile types, with no repressions, are easier to read. The stronger unconscious system reinforces the weaker foreconscious. The remnants of the previous day (foreconscious system) need not necessarily have the character of a wish. The wish is from the unconscious. It unites with the harmless elements of the foreconscious, thus hiding its character. To sum up: The dream is the disguised fulfillment of a repressed wish. Freud discusses apparent contradictions to this theory, e. g., anxiety dreams.

It is the day remnants which disturb sleep,—the dream itself acting as a guardian to sleep. Everybody recognizes the importance of sex complexes in the genesis of dreams (and also in psychoneurotic symptoms). But as Freud says (page 104), one should not exaggerate these to the point of making them exclusive. We see dreams of hunger, thirst, convenience, etc.

The real psyche is the unconscious. Complex mental operations are possible without the intervention of consciousness. Much of the best work of Goethe, Helmholtz and others was inspired, and not merely the direct work of pure intellect. One might compare the condensation, distortion, etc., of a dream to a newspaper cartoon. What is manifest is not the real meaning; the meaning to be conveyed is latent. Much of the manifest content of a dream is worthless, which is the reason why it is depreciated by academic psychologists. The strangeness of a dream in great part is due to the condensation.

This book shows the same careful thinking noted in all of Freud's writings. It is easier to follow than his larger "Interpretation of Dreams." It will be a little difficult to understand if one has no knowledge of psychoanalytic technique. Most critics of Freud have been content to use as weapons, ridicule and derision. The only question at issue is, whether there is an unconscious in our psychic life. Most modern psychopathologists think there is.

The faults of amateur or irresponsible lay analysts cannot be charged against the method itself. Morphine, arsenic and the surgeon's knife are valuable in the proper hands. They may be disastrous if misused. Certain patients should never be analyzed. They cannot accept the hidden material which will necessarily be brought to light. The reviewer recently asked to see a girl in a Long Island town who had gone insane the day following "psycho-

analysis" (?). The girl had merely been asked some questions of a personal nature by someone in another city. This is not psychoanalysis. One cannot be analyzed on one visit. An analyst would not have asked those questions. This is not probing the unconscious. The fault lay with the operator, not with the method. And this is why psychiatrists are opposed to "lay psychoanalysts." There is one criticism we would make against the publishers of this book. On the paper cover they have printed, "Here is presented to the reading public" etc. Now this method is a serious medical problem. It has its valuable side, but it also has its limitations and its dangers. Psychoanalysis must always be preceded by a careful medical and psychiatric examination. The practice of this method by lay persons is illogical and nonsensical, and is fraught with danger.

JOHN F. W. MEAGHER.

TEXTBOOK OF PATHOLOGY.

A TEXT-BOOK OF PATHOLOGY. By Alfred Stengel, M. D., Sc. D. and Herbert Fox, M. D. Seventh Edition, reset. Phila. & London, W. B. Saunders Company, 921. 1111 pages, 50 illustrations. 8vo. Cloth, \$8.50.

This is an excellent one volume pathology which one need not hesitate to recommend to anyone desiring a work of this class. The entire field of pathology is covered under the usual headings of general and special pathology. The paragraphic form used in former editions is retained. In the present edition much new matter has been added bringing the book thoroughly up to date. In reading the section on nephritis, which has been re-written, the reviewer is pleased to note an attempt to simplify the classification of the nephritides in harmony with modern chemical pathology.

E. B. SMITH.

FOUNDATIONS OF PSYCHIATRY.

FOUNDATIONS OF PSYCHIATRY. By William A. White, M. D. New York & Wash., Nervous & Mental Disease Publishing Co., 1921. 136 pages. Paper, \$3.00. (Nervous & Mental Disease Monograph Series, No. 32.)

White is not only the most prolific, but also one of the most interesting writers on psychopathology. This, his latest work, is a philosophical treatise on psychiatry; and so would be of greater interest to the psychiatrist than to the general medical reader. Two of the main chapters of his book, however, could be read with profit by every physician. One is on the "Nature of the Neuroses and the Psychoses"; the other is on "Therapeutics."

The casual reader of psychiatric literature is often confused by the seemingly wide contradictions expressed by the leading modern authorities as to the etiology and biology of the so-called functional nervous and mental diseases.

Here White succinctly presents the theories of Janet, Freud, and his two former followers, Jung and Adler; and the American

writer, Kempf. White, of course, is a consistent adherent of psychoanalysis, though not as orthodox as Ernest Jones, for instance.

He very prettily shows that Janet's ideas concerning fatigue and the retraction of the field of consciousness in the neuroses harmonizes in many respects with the Freudian concepts. But he likewise shows that Freud's attitude is more interpretive, and hence from the pragmatic standpoint is more satisfying to the student, and therapeutically is of greater value to the patient.

He shows how Jung differs from Freud in that he emphasizes the present difficulties of the patient more than his fixations and repressions; and pays greater attention to the race, whereas Freud pays more to the individual. While Jung recognizes the importance of sex in the causation of the neuroses, his pan-sexualism is more limited than is Freud's.

He then takes up the theories of Adler and Kempf, who are organicists. Adler's idea that the neuroses result from the struggle and failure to overcome the feeling of (organic) inferiority is psychologically weak, as it does not fully consider the dynamic value of strivings, trends and desires.

White is very favorable to Kempf's theory of the vegetative nervous system being the basis of the personality; that muscular and visceral tensions need neutralization,—the resulting reactions constituting and influencing conduct. Adler's, and particularly Kempf's theories, are attractive to many physicians, who, because of their objective medical training like to picture an organic basis for the neuroses.

Like every psychological study which comes from Professor White, this book is worthy of careful consideration.

J. F. W. MEAGHER.

BOOKS RECEIVED.

Books received for review are acknowledged promptly in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases review notices will be promptly published shortly after acknowledgment of receipt has been made in this column.

OPERATIVE SURGERY. By J. Shelton Horsley, M. D., F. A. C. S. St. Louis, C. V. Mosby Company, 1921. 721 pages with 613 original illustrations. 8vo. Cloth, \$10.00.

CLINICAL SURGERY BY CASE HISTORIES. By Arthur E. Hertzler, M. D., Ph.D., F. A. C. S. St. Louis, C. V. Mosby Company, 1921. 2 vols. 1106 pages, 483 original illustrations. 8vo. Cloth, \$16.00 per set.

THE ALLEN (STARVATION) TREATMENT OF DIABETES, with a Series of Graduated Diets. By Lewis Webb Hill, M. D. and Rena S. Eckman, Dietitian. Fourth Edition. Boston, W. M. Leonard, 1921. 140 pages. 12mo. \$1.75.

THE PRACTICAL MEDICINE SERIES. Comprising Eight Volumes on the Year's Progress in Medicine and Surgery. Under the General Editorial Charge of Charles L. Mix, A. M., M. D. Series 1921. Volume 1, General Medicine, Edited by Frank Billings, M. S., M. D. and Burrell O. Raulston, A. B., M. D. Chicago, The Year Book Publishers. 630 pages, 38 plates. 12mo. Cloth, \$2.50. Price of series of eight volumes, \$12.00.

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Industrial Health Work

ALFRED E. SHIPLEY, M. D., D. P. H.

Director N. Y. Industrial Health Bureau

SUPERVISING the health of industrial workers is a branch of Medicine between private practice on the one hand, and public health on the other. It involves features incidental to each, and in addition, introduces phases new to the field of Medicine. It is a combination of Curative and Preventive Medicine modified to meet the requirements of Industry.

In both Industrial and Public Health work, it is necessary as a basis to think in group terms. A community, whether industrial or social, is composed of groups of people, upon whom forces are acting and reacting constantly. The maintenance of the health of such groups, and their protection against disease and other abnormal health conditions is an essential part in their progress. If, therefore, a physician contemplates entering the field of Industrial Health, this group idea must be kept constantly in mind.

In using the term "Industrial Health," it should be interpreted in its broadest sense, as embracing surgery, medicine, sanitation and hygiene. Industrial Surgery is only one phase of the entire field; many physicians unfortunately, consider it the only health work interesting the industrial world. Furthermore, surgical treatment in industries as practised today, to a great extent is purely technical. Very little or no effort is made to determine the relation of the injured workman to his job, and how he may be returned to that job in the best possible physical condition. This is true both of private physicians and hospitals to whom cases are sent.

From an administrative standpoint, industrial health work may be considered under three divisions—(A) First Aid and Emergency measures; (B) Preventive measures; (C) General Administrative measures. In each of these groups are the following:

(A)—*First Aid and Emergency Measures.*

This includes those features which are necessary in caring for sickness and accident cases in the factory and the homes of the employees, such as

(a) Daily visits to the factory by physicians or nurses or both, to attend to emergency cases.

(b) Arrangements for hospital care when this is necessary.

(c) Visits to home of employees who are sick or injured.

(d) Dental service if desired.

(B)—*Preventive Measures.*

This embraces features which aim to forestall accident or sickness; to bring about better conditions of health of employees; and to show workers how to obtain better results with the proper expenditure of energy. These features are—

(a) Medical examinations for employment—to discover and correct physical defects which would be detrimental to the worker and to the employer, such as hernia, weak heart, defective vision or hearing.

(b) Periodic medical examinations to prevent disease—to discover in their incipency, abnormal health conditions which would disqualify a valuable worker if allowed to develop. In this way also infectious diseases may be discovered, dangerous to the individual or to his fellow-workers with whom he is in daily contact.

(c) Supervision of factory sanitation and hygiene—which protects the workers and keeps them in the best physical condition, with resultant benefit to themselves and to the Company for which they work. These measures include proper light, ventilation, toilet and washing facilities, and personal hygiene.

(d) Reduction of industrial health hazards—by careful study and observation of the effect of materials used and methods employed by the various employees in their work, and the correction of conditions found to be detrimental.

(e) Inspections to reduce accidents—to insure the proper attention and attitude of the workers themselves, without which accidents will occur despite the installation of safety devices.

(f) Study of work methods—in so far as they relate to the physical condition of the workers themselves, such as faulty postures while at work, fatigue produced by prolonged or improper muscular motions, improper height of work benches, and similar matters.

(g) Health education features—such as group talks, health exhibits, bulletins and pamphlets, moving pictures, and especially personal talks to individuals who need such attention.

(h) Investigation of home environment—to discover and suggest correction of conditions which impair the physical condition of an employee, with resultant loss to himself, his family, and his employer.

(i) Maintenance of proper records of service given with analyses and deductions therefrom to guide in securing results.

(C)—*General Administrative Measures.*

This includes those features such as the correlation of data from the various industries, their analysis, and the application of principles and new facts discovered therefrom. Some of these features are—

(a) Close and constant supervision of the field force of physicians, nurses, and home workers.

(b) Compilation and analysis of records and other data for use by the industries, which are thus enabled to compare their work and results with that obtained in other plants.

(c) Advice and testimony re law suits, such as the evaluation of

injuries or physical conditions, and the determination of lessened earning capacity.

(d) Follow-up of the various procedures incidental to the Workmen's Compensation law.

(e) Professional opinion and advice as to industrial health requirements and laws, with supervision of their application in the factories.

(f) Current information as to new laws, latest literature, and new features with respect to industrial health.

After reviewing the foregoing features, it is evident that a complete Industrial Health program covers a very extensive field. Practically very few industries install such a full-fledged service at the outset. Most frequently, an emergency clinic service is instituted first, and after its value is proven, other features are added gradually. These additional activities, however, are principally preventive in character, and it depends therefore upon the training and vision of the physician in charge whether the health service is to remain merely emergency in type, or is to expand into a more comprehensive and valuable service. At present, emergency and curative surgery is the sole feature in the great majority of industries; the broader field remains untouched.

Another reason for the relatively slow expansion of the preventive phases of the work, is the difficulty in showing to the employer in concrete figures the value of such measures. The physician may feel certain in his own mind that the physical examination of employees, health talks on matters affecting their work, or the maintenance of proper hygienic surroundings, aid in increasing the production of manufactured goods, but it is not easy to interpret these benefits to the manufacturer in the common business language of dollars and cents. There is no standard recognized in the industrial health field, by which even emergency measures surgical and medical, may be measured in economic terms. These are matters of importance, because the recognition of health work as a worth-while part of Industry must be proven on an economic basis. As the prime object of any industrial plant is the manufacture of goods, when a health service is proposed the first question raised is, what benefit to production may be expected from it.

While manufacturers recognize a certain degree of responsibility for the well-being of their employees, yet it is not upon this basis that industrial health work can be solidly built. It is not a so-called welfare activity, but a definite aid to factory output. Prove to any wide awake industrial manager that health work pays, and he will be ready to invest in it. Once installed, the benefit to the employees will come as a matter of course.

In the opinion of the writer, one of the strongest weapons against Compulsory State Health Insurance which proposes to throw upon Industry a large part of its financial burden, is the establishment by industries themselves of their own health services. Given a definite plan, private business will show more initiative and progress than governmental bureaucracy. But it is up to the medical profession to help Industry to evolve such a plan.

The installation and equipment of the clinic room will depend to a considerable extent upon conditions in each factory. Many places are in need of more space for production purposes and can ill afford room for a clinic. Under such conditions, a start must be made with

very simple working equipment and in the best location available. This will do until the service has proven its value. Experience shows that factories are willing to invest money if convinced that it pays.

A clinic service must be so administered as to fit in to the entire production program. To this degree it must be placed upon a business basis. A sufficient stock of supplies should be maintained by taking inventories at stated periods, say, once a month. Requisitions for current supplies should be made at regular intervals, in harmony with the custom of other departments. Proper observance of these and similar business matters, soon gains respect for the health service from the factory manager, whereas, if disregarded, the work is apt to be considered a nuisance.

The treatment of patients should be so planned that the least possible time is taken away from their work. A definite hour or hours at which time patients are to be seen at the clinic should be established, and appointments thereto made at certain intervals. Experience shows that as an average five-minute interval between appointments is sufficient to care for the clinic needs. Apart from the emergency cases which of course occur at all times during the work day, these stated hours should be observed very strictly. By such appointments, the possibility of many employees waiting for attention at the same time is avoided, thus preventing waste of time. Furthermore, it enables a proper working schedule to be made for the nurse, so that when her actual clinic work is finished, she may devote her time to making up dressings, making daily sanitary inspections, or making home visits.

It is hardly necessary to say that careful consideration should be given to each patient who comes to the clinic. The industrial physician has unusual opportunities to gain the confidence of the workers, provided he secures the respect of the employees. If he does this, he will become an important part in the development of better industrial relations between the employee and the management. Such relation, however, will not be secured by treating the employee merely as part of a big industrial machine, as some physicians engaged in this work have done in former years. Men of this kind are contemptuously referred to as "Company doctors," and their inconsiderate treatment of workers in some of these plants has left impressions which require the utmost tact of the modern industrial physician to efface. In one of the plants under the direction of the writer, 85% of the employees at one time or another within a period of six months, had come to the clinic for advice or treatment. Probably no other department in a factory has such a personal contact with its influence for good or evil as does the health service.

Information given in confidence by the employee must be respected in industry as in private practice. As a rule, matters which come up in the clinic room or around the factory, are of such a character that no objection is made by the patient to its discussion with the officers of the Company, but if objection is so made, then his rights must be respected. Occasion may arise, as, for example, in case of a distinct health menace such as active syphilis, where the rights of the individual must be balanced against the danger to large groups of fellow workers. At these times, the tact and judgment of the physician will be tested to the utmost.

Health records should be considered confidential, filed separately from other office records, and kept in locked drawers. They should not be available for perusal by the general office force or other

workers. When health information is necessary as a general office record, such as on an employment department card, it should be noted by code letter agreed upon for administrative purposes.

No physician should permit the health service to be used for ulterior purposes. Factories anxious to rid themselves of undesirable employees have been known to request the doctor to examine such individuals in order that their physical condition may be made the excuse for their discharge rather than the real cause. Such a request is unfair both to the physician and the employee, and should be refused.

Due to the Workmen's Compensation Law, surgical cases divide themselves into two groups, (a) industrial accidents, and (b) all other surgical cases. The care of accidents and their records must comply with the requirements of the State Law. In passing, it may be said that no good industrial surgeon should object to a modification of the law whereby the injured employee would be permitted to choose his own physician. If the character of the service given by the industrial physician is what it should be, and he has secured the confidence of the employees, there will be little question as to his selection by the worker when injured.

The proportion of accidents to other surgical work will vary according to the character of the industries, but they constitute the greater part as will be seen from the following figures taken from the 1920 records in several plants under the direction of the writer:

Plant A—Total Surgical Cases (New)	728	of which	402	were accidents
“ B— “ “ “ “	353	“ “	239	“ “
“ C— “ “ “ “	627	“ “	517	“ “
“ D— “ “ “ “	381	“ “	276	“ “
“ E— “ “ “ “	347	“ “	213	“ “

It may be interesting to note that the number of surgical cases was in direct ratio to the number of employees working at the respective factories; furthermore, the above figures show that with the exception of Plant C. the proportion of accidents was fairly uniform.

Minor surgery is the rule as would be expected where prompt treatment for trivial injuries is urged as a factor in preventive surgery. The early return of the worker to his task of production must always be kept in mind.

The following table of accidents shows the character of injuries requiring attention:

SUMMARY OF ACCIDENTS

Plant	Infections	Incised, Punot, or Lacerations	Abrasions	Bruises	Burns	Sprains	Splinters	Foreign Body in Eye	Dislocations	Fractures	Amputations	Hernias	Miscellaneous	Totals	Reported as Compensation Cases
A	50	148	72	14	42	23	33	19	--	--	--	--	1	402	19
B	41	114	14	8	23	15	6	18	--	--	--	--	--	239	5
C	18	290	72	37	31	16	30	13	--	2	2	5	1	517	40
D	7	138	45	36	15	17	8	5	1	1	1	2	--	276	24
E	1	97	44	35	14	9	10	1	--	--	--	2	--	213	10
	117	787	247	130	125	80	87	56	1	3	3	9	2	1,647	98

As an average, two re-dressings are required for each surgical case. In applying surgical dressings, the worker's job must be considered. For instance a finger dressing which leaves the finger tip free when possible, means much to a needle worker when delicate manipulation of the working material is necessary.

Surgical re-dressings and first aid surgery can be done by the clinic nurse under the close supervision of a physician. In this respect, the factory clinic should be on the same basis as any hospital dispensary. Unfortunately, some factories only engage the services of a nurse, and rely upon her to send an emergency call for a physician when she considers it necessary. This results in some instances, in the virtual practice of medicine and surgery by the nurse, a condition which cannot be too severely condemned. This danger was called to the attention of the readers of this JOURNAL by the Editor very recently.

Records indicate that the surgical conditions encountered in industry are not haphazard, but can be measured and forecast fairly accurately. This point is illustrated in the table below, on "Summary of New Cases."

Whether surgical or medical cases will predominate in the factory clinic depends in large measure upon the relative proportion of men and women employed. Female help increases the number of medical cases.

The medical cases which come to the clinic are usually of an emergency character, and as a rule are able to return to work immediately after relief of the condition. The Health Service is interested in returning these workers to their jobs with minimum loss of production time to the employee and the employer. This does not mean, however, that symptomatic treatment is the only medical function of the clinic. Careful questioning, with adequate records and individual histories, are necessary in order that more serious ailments may be detected. When discovered, such cases should be urged to see their family physician.

The close cooperation of the industrial physician with the private physician is essential. The industrial life of the worker averages a little over eight hours daily, or about one-third of the entire day. This means that the environment of the individual is two-thirds non-industrial, in which time conditions are present constantly affecting his health favorably or unfavorably. When such conditions are detrimental to the physical condition of the individual as a worker, it concerns the industrial physician, and it becomes necessary for him to eliminate the cause if possible. If the cause is of a medical nature, the aid of the family physician should be enlisted. Again, the health service of a factory is in closer touch with the average worker than is the family physician who is consulted usually only when illness makes it necessary. This constant surveillance enables abnormal health conditions to be recognized early, and their prompt reference to the family physician should follow.

To a large degree, the medical ailments encountered are due to general causes; that is to say, they arise out of the entire life of the worker and are not exclusively industrial. When indigestions are caused by too hurried eating because the lunch period is too short, or where headaches are due to work done under tension, then they may be classified as industrial causes. The typical occupational diseases

are those due to poisons used in the manufacturing processes, such as lead, arsenic, mercury, benzol, and similar products. Here there is a well defined relation between the material and its effect upon the worker, but in diseases such as pulmonary tuberculosis it is difficult to trace a definite occupational cause. The tendency of State laws is to include under compensable diseases, many conditions which it will be hard to prove are due to working environment, and promises to involve much litigation when such claims are presented.

In the table on "Summary of New Cases," the analysis of medical cases may be of interest as well as the surgical:

SUMMARY OF NEW CASES, 1920

Surgical	A		B		C		D		E		Totals	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
UPPER EXTREMITY												
Fingers	307	42.2	184	52.1	313	50.2	197	51.7	152	43.9	1,153	47.4
Hand	113	15.5	47	13.4	105	16.8	63	16.5	57	16.5	385	15.8
Forearm and Arm	58	8.0	29	8.2	44	7.0	25	6.6	31	9.0	187	7.7
	478	65.7	260	73.7	462	74.0	285	74.8	240	69.4	1,725	70.9
LOWER EXTREMITY												
Toe	7		9		11		8		7		42	
Foot	33		9		15		9		16		82	
Leg	22		5		20		9		11		67	
Thigh	5		1		3		0		0		9	
	67	9.2	24	6.8	49	7.9	25	6.9	34	9.8	200	8.2
HEAD												
Scalp	16		2		8		9		6		41	
Face	54		13		23		17		17		124	
Eye	50		27		38		19		29		163	
Ear	1		9		0		1		2		4	
	121	16.6	42	11.9	69	11.1	46	12.0	54	15.6	332	13.7
TRUNK												
Neck	49		21		19		8		8		105	
Chest	2		2		1		3		2		10	
Abdomen	2		0		8		6		4		20	
Back	9		4		16		7		4		40	
	62	8.5	27	7.6	44	7.0	24	6.3	18	5.2	175	7.2
TOTALS	728	100.	353	100.	627	100.	381	100.	346	100.	2,432	100.
MEDICAL												
Eye	67	4.6	19	2.9	19	4.6	6	3.	16	7.6	127	4.4
Ear	13	.9	14	2.1	3	.7	5	2.5	3	1.4	38	1.3
Teeth	35	2.4	23	3.5	9	2.2	2	1.0	11	5.1	80	2.7
Digestive	281	19.7	126	19.3	76	18.6	76	37.6	53	25.0	612	20.9
Respiratory	408	28.3	193	29.5	119	29.0	50	24.7	45	21.2	815	28.0
Circulatory	6	.4	3	.5	0	.0	1	.5	4	1.9	14	.5
Nervous	328	22.7	124	18.9	109	26.6	24	11.8	38	18.0	623	21.3
Skin	46	3.2	30	4.6	19	4.6	16	7.0	15	7.1	126	4.3
General	257	17.8	122	18.7	56	13.7	22	10.9	27	12.7	484	16.6
TOTALS	1,441	100.	654	100.	410	100.	202	100.	212	100.	2,919	100.

If these various ailments are recorded by departments in a factory, the physician is able to locate health conditions very definitely. In fact, the number of cases of certain ailments becomes fairly constant, and variations therefrom demand investigation. For example, in one plant the number of headaches in the millinery department runs about the same month after month. On one occasion, when this average jumped very considerably an investigation showed that acetic acid fumes entering the workroom from an adjoining factory were affecting the girls with nausea and resultant headaches. A prompt correction of the cause followed.

When a record of sickness absence is kept, many facts important from an administrative standpoint may be revealed. The proportion of

absence due to illness can be compared with the absence from other causes. Industrial statistics on this point so far as they have been studied indicate that sickness causes about 50% of the total absence of workers. If such absence is recorded by departments, those rooms running a higher rate than the factory average can be located very readily. In one plant a very interesting analysis was made a few months ago. It was found that while the general factory absence was 6%, one section was running a rate of 12%. This section employs female help of varying ages, the large proportion, however, being young women. The manager of the factory thought this excessive absence was due to the girls and younger women. To prove the point, it was decided to divide the absentees into age groups with the surprising contrary result as shown here:

Age Groups	Days Absent	No. of Employees Absent	Avg. Days Absence per Individual
15-19	24	12	2
20-24	7	3	2 1/3
25-29	15	5	3
30-34	16	3	5 1/3
35-39	—	—	—
40-44	28	4	7
45 plus	71	5	14 1/5
	161	32	5

More than one-half of this absence was due to illness, the large part of which was in the women above 40 years of age, and was due to more serious ailments and slower convalescence.

From a careful record of clinic ailments and sickness absence, morbidity statistics can be compiled which give a fair picture of how illness is running not only in the industry but in the community. Data with respect to community illness is an urgent need at present as a basis for intelligent preventive measures, and an opportunity is presented through industrial health work, to aid in securing such information.

In the physical examination of new or regular employees, a great opportunity for securing the confidence of the worker is presented. Some establishments make such an examination compulsory before employment, but the wisdom of such a course as a routine procedure is doubtful. Until such examinations become universal in the industrial world, they are apt to be resented by the worker applying for a job. Experience proves that very few applicants are rejected for physical defects which cannot be corrected. As a rule, individuals giving marked evidence of poor physical condition will be recognized when applying to the Employment Department, and can be referred at once to the Health service. So many new employees quit their jobs for various reasons within the first week or ten days, especially during periods of rapid labor turnover, that it is economically wasteful to spend time upon such examinations before this period of time has elapsed. Furthermore, if these examinations are conducted, as they should be, in a sympathetic manner, and with the privacy that each worker has a right to expect, the new employee will learn this from other employees before his turn comes, and will welcome instead of refuse the test.

The physical examination of employees should be of a practical character, that is, covering those physical conditions which apply to the

industrial life of the worker, and to the company employing him. Enthusiasm for research work should not lead the physician into the fields of medicine which do not concern the industrial life of the worker. With knowledge of previous employment, and of the work the applicant is about to take up, the physician should pay especial attention to physical conditions directly concerned with the job to be filled. For example, needle workers require careful eye tests, lead workers special inspections of the teeth, laborers required to do heavy lifting close examinations for weak inguinal rings, and workers who are on their feet all day inspection for flat feet.

In the majority of cases, physical defects discovered can be corrected so as to enable workers to take up vocations for which they have applied, and not be handicapped as to their working ability and earning power. In those few cases where it is necessary to reject applicants because of defects, the conditions found should be explained frankly, and suggestions made as to the kind of work which would be suitable and safe. A flat rejection without explanation leaves the individual full of doubt and dread, and is not fair to the man.

Factory sanitation and hygiene must be viewed from two angles—(1) the general environment or surroundings of the worker, and (2) the effect of these surroundings upon the workers themselves. Factory environment may be ideal, and yet through ignorance or neglect the worker may not secure its benefits. To illustrate, both natural and artificial light may be so arranged that illumination is perfect, yet the operator through improper sitting or standing posture may nullify all these advantages.

Many factors must be considered in an adequate sanitary inspection. The writer in his service makes an inspection in the following order:

Environment—1, floors; 2, walls; 3, ceilings; 4, windows; 5, lighting; 6, ventilation; 7, temperature; 8, sweeping; 9, safety devices; 10, chairs, work-benches, etc.; 11, toilets; 12, washing facilities; 13, drinking water; 14, lockers; 15, dust; 16, dirt; 17, disorder; 18, poisons.

Personal—The effect of conditions upon the worker as to 1, eyes; 2, ears; 3, nose; 4, mouth; 5, skin; 6, scalp; 7, hands; 8, miscellaneous physical effects such as cough, anaemia, etc.; 9, clothing; 10, inactivity; 11, fatigue; 12, injuries; 13, poisons; 14, infections.

Each of the above factors is considered in a very detailed manner. For example, under ventilation, consideration is given to the method used, its adequacy, presence of dust, gases and fumes in the room atmosphere, free flames without vents, still air, ventilation of the various processes as required by law, and air tests.

Accidents are prevented in large measure through the use of proper guards and other appliances on machinery, and this matter therefore comes under the jurisdiction of the engineering force. But records show that the vast majority of accidents are due to personal factors, such as carelessness or inattention and poor physical conditions such as defective vision or fatigue, and these concern the Health service. The prevention of accidents, therefore, calls for the closest coöperation between the engineering and the health forces. Many of the liability insurance companies which insure industrial establishments against accident claims which come under the Workmen's Compensation Law, allow a considerable reduction in the premiums when the safety and first aid work is well organized.

The education of the worker with respect to his health so far as it

relates to his industrial life is very important. Group talks are given to factory employees especially at noon hours by many health organizations such as the City Health Department, the American Red Cross, Y. M. C. A. But in the experience of the writer, the most effective method is the appeal to the individual when coming to the clinic for advice or treatment, or else by informal chats to groups of workers when busy at their tasks. A talk to needle workers while employed is the best way to point out individual faults as to improper care of the eyes. The necessity for not neglecting the cut or puncture wound is often driven home very forcibly by exhibiting a patient with a nasty infection to his fellow employees. Bulletins, posters, articles in the factory paper, and moving pictures are other means of placing health facts before the workers.

The installation and maintenance of proper records are just as important for health work as they are for other phases of industry. They are the guide posts by which to estimate the results of work performed, as well as the basis for expanding the service intelligently. These records should be as simple as possible, yet should furnish sufficient data for proper analysis. The keen, practical factory manager appreciates facts which show him the health status of the human power under his direction. The ability of the industrial physician to present this information to the management of the industry he is serving is an important factor in the success of the Health Service.

Surgery of the Hand*

WILLIAM FRANCIS CAMPBELL, F. A. C. S.

Brooklyn, New York

It is not the purpose of the author to discuss all the pathological conditions to which the hand is exposed, but rather to emphasize certain surgical principles suggested by the anatomy of the hand, which have a most important bearing upon the conservation of function.

The hand as an anatomical unit offers a most interesting study—in it is writ largely the history of man's struggle from quadruped to biped—from locomotion to prehension. It has been trained through an age-long struggle to minister not only to man's physical needs but to express his varied emotions in color, form and sound.

It is the chief tool by which man earns his daily bread—the conservation of its varied functions must therefore be planned with the utmost care; and when surgery is necessary, it is to be applied with a due regard to its effect upon ultimate function.

An infected hand is often cured at the price of a useless hand.

Properly planned incisions drain the parts without compromising function.

Think twice before making an incision in the hand. Observe the surgical significance of the Flexure folds of the Hand. The characteristic lines on the palmar surface of the hand possess a far deeper significance than that imparted by the subtle imagination of the pro-

* Address delivered before the Greenpoint Medical Society, May 24, 1921.

fessional palmist. These creases are the surface landmarks of an underlying physiological function: They represent the adaptation of the skin and subcutaneous tissue to the movement of the underlying joint for the evident purpose of permitting the greatest freedom of movement of all the joints of the hand. But as Jones has demonstrated these flexure lines are more than mere folds, they are comparatively fixed and permanent.

"A line of comparative skin stasis is produced by an anchoring of the skin to the underlying tissues. The specialized smooth line of skin is bound down to the dense subcutaneous tissue, and this in turn is fixed to the deeper structures. An anchorage plane penetrates the tissues of the palm and creates a surface line of stasis." (Jones)

It is obvious that this immobility of the skin of the palm is designed to give a firmer grasp than would be afforded if the skin glided easily upon the subcutaneous tissues.

It must also be noted that the flexure folds while definitely related to joint function, do not always indicate upon the surface the exact position of the underlying joint.

The surgeon who appreciates the value of these flexure folds to the functional activity of the hand will use every effort to avoid incisions that damage normal flexure creases.

To make a scar at right angles through a flexure fold is to inflict a severe functional handicap.

By thinking in terms of ultimate function thoughtless incisions with their sequelae of disabled movements of the fingers will be avoided. In incising the hand the teaching of Kanavel should be closely followed—

Incisions of fingers should be made at the side, not in the median line, cutting the length of the shaft of the phalanx, leaving the part over the articulation uncut to prevent prolapse of the tendon.

Avoid, if possible, slitting up the whole palmar surface of a finger by a longitudinal incision in the middle line unless justified in inflicting the maximum functional damage.

THE HAND AT REST. *More functional disability of the hand results from faulty positions of immobilization than results from the injury itself.* This is largely due to an erroneous conception of the relation of anatomic position to physiological rest. Rest can only be obtained when the muscles are in a state of equilibrium; and according to Hilton's law, muscle rest implies nerve and joint rest. As Jones observes, "the hand is not in a position of rest when it is fixed flattened on to a splint with flexors stretched and palm flattened, nor is it in a position of rest when it is fixed doubled up into a fist with flexors relaxed and extensors on the stretch. No rest is attainable at any time in any position in which any group of muscles is put upon a tension to which these muscles do not attain in a normal resting position."

The hand at rest is the hand in pronation with the fingers partially flexed; such a position as the hand naturally assumes in a state of quiescence. Whenever immobilization of the hand is required, this is the ideal position to insure the patient comfort and the minimum of functional disability.

The Lymphatics in the hand take the shortest route to the back of the hand; hence swelling and redness of the dorsum should always lead to investigation of the palm for the focus of infection. *Seventy-five per cent of hands treated show improper and unnecessary incisions*

on the dorsum (*Kanavel*). Lymphatic extension from the little and ring fingers takes place through the epitrochlear glands and thence to the axillary glands.

Extensions from the thumb and forefinger go to the axillary glands without interposition of the epitrochlear glands.

Extensions from the middle finger may involve either the axillary or epitrochlear glands. In some cases the lymphatic vessels pass up over the clavicle into the subclavian glands and thus directly into the circulation (*Kanavel*).

It is obvious from this lymphatic arrangement that infections of the thumb, index and middle fingers have a more important relation to general systemic infections than those arising in the little and ring fingers.

THE PATHOLOGY OF FELON is as yet not generally understood and unsatisfactory treatment still continues.

The term Felon should be restricted to infections of the terminal phalanx where the pulp of the finger is involved. We are indebted to *Kanavel* for the modern anatomical conception of this lesion. He has shown that the connective tissue forms a closed sac about the pulp and distal part of the phalanx. Collections of pus here may produce enough pressure to cut off the blood supply and cause necrosis of the bone; but the closed space involves only the diaphysis, hence the epiphysis escapes necrosis. Deductions from these facts emphasize the logical treatment of felon:—

First: Lateral incisions should be employed to avoid a scar over the tactile portion of the finger.

Second: If the bone is necrotic; *only the diaphysis is involved*; only the diaphysis need be excised. The epiphysis remains intact with its attached tendon and thus preserves the functional activity of the joint.

PARONYCHIA: This term should be restricted to infections along the base of the nail. Infection of the nail root detaches it from its bed. In the treatment of this condition special care should be exercised to avoid making incisions into the nail bed; such incisions result in a permanently split nail when it is finally renewed.

Incisions for drainage should be made along the outer edge of the nail down to the base carefully avoiding injury to the nail bed.

When infections reach the palmar bursae or middle palmar space and extend into the forearm; disabling incisions will be avoided if it is remembered that pus passing from the palm to the forearm always travels toward a certain space first described by *Parona* and of considerable surgical importance.

Parona's Space. There is a large space in the lower part of the forearm about two inches above the wrist situated between the pronator quadratus and the deep flexor tendons, in direct continuity with the tendon sheaths and middle palmar space. *Kanavel* has shown that if pus ruptured from the synovial sheaths or passed from the middle palmar space it would enter this area. It is most accessible on the ulnar side and it is at this point that drainage is instituted.

Drainage of *Parona's space* is easily accomplished by selecting a "point one and a half inches above the tip of the ulna and making an incision directly down on the flexor surface of the bone. An artery clamp is thrust across the flexor surface of this bone and the radius until it impinges on the skin at the radial side where the knife cuts down upon it. The incisions in the skin are now enlarged to the

length of one and one-half inches and the artery forceps opens the subcutaneous area to the same extent" (Kanavel). It is said that this space may hold a half pint of fluid. This is the most practical drainage sight for infections extending from the palm into the forearm. It provides the best drainage with the least damage to structures.

The poultice is responsible for more disabled hands than the accidents of war or machinery.

Elimination of the poultice:

Prompt and carefully planned incisions:

Immobilization of the hand in a position of anatomic rest; will prevent much of the disability that follows injury and infection.

Neuro-Syphilis in its Various Aspects

LOUIS A. BONVICINO, M. D.

New York City.

IN order to give you a clear conception of the different lesions produced by the *treponema pallida* on the cerebro-spinal nervous system, I will briefly describe the most important points of its anatomy. From without inward we see anterior and posterior nerve roots, the spinal cord consisting of ascending and descending tracts, the medulla with its vital centers, the cerebellum, the pons, the mid-brain, the cerebrum and the twelve cranial nerves. In both the spinal cord and the cerebrum there is gray and white matter. In the cerebrum the gray matter is outside and the white inside; in the spinal cord the white matter is outside and the gray inside. The roots, the spinal cord, and the brain are covered by the dura, a parietal covering and the pia-orachnoid a visceral covering; the latter also lines the different convolutions, the blood vessels of the brain, the cord and the cranial nerves throughout their course. The inner lining of the pia is called the *membrana limitans gliae perivascularis*.

Bearing this in mind you will be able to give reasons for the pathology encountered in the different forms of neuro-syphilis; you will be in a position to explain physical signs, and physical and mental symptoms.

It is of the utmost importance for the progressive physician to know that about 2 or 3 weeks are only required for the *treponema pallida* to invade the entire body not excluding the nervous system, which is the subject least investigated in luetic patients. No luetic patient or one suspicious of lues should go without a lumbar puncture, examining the spinal fluid for cells, globin, Wassermann, and the gold colloidal test before the doctor is through with the examination besides doing a blood Wassermann. It should be considered criminal negligence if this is not done. Experience in neuro-psychiatric clinics the world over point toward this conclusion.

The different types of luetic infections of the nervous system are *tabes-dorsalis*, *amyotrophic tabes*, *cerebro-spinal syphilis* of which we have the inflammatory types such as; *endarteritis* of (a) the large vessel (b) the small vessels (c) the *encephalitic* form, and (d) the mixed form. The non-inflammatory types are (a) the acute (b) the

sub-acute (c) the chronic (d) the gummatous, meningo-myelitis or meningo-encephalitis.

In *tabes dorsalis* we have a meningo vascular syphilis, mesodermal in nature, affecting the entire sensory part of the spinal cord and roots. It is extra- and intra-medullary because both are affected. The dura is at times involved. There is arachnoiditis which forms the primary lesions of *tabes*. There is hyperaemia, thickening of the arachnoid, edema, the infiltration of lymphocytes and plasma cells, a destruction of nerve fibers, and an increase in connective tissue cells and fibers. According to Oberstein's theory it is a productive leptomeningitis. There may or may not be any endarteritis. Virchow-Robin spaces are infiltrated with the same blood element. So the first change in this disease is in the mesodermal elements, then the protoneuron degenerates, the peripheral fibers get smaller and the number of ganglion and Schwann cells increases. There is an increase in connective tissue and at times the Nissl bodies or the tigroid substance is lost; then cloudy swelling and cell sclerosis follow. It is primarily a root disease where marked degeneration is present, primary and secondary, most marked in the lumbar sacral region because here the roots are longest and there is more arachnoid sheath to line them. Such are called the nerve roots of Nageotte. This disease continues through a progressive sclerosis to absolute sclerotic atrophy. In the intramedullary portion the columns of Gall and Burdorch, the intra- and intersegmental fibers undergo the greatest destruction; hence the proto-sensory neuro-mechanism is affected. In amyotrophic *tabes* we find a degeneration of the anterior nerve fibers, due to a degeneration in the anterior horn cells. The pons, the medulla, the cerebellum and the arachnoid sheath are also involved; hence similar changes are met with in the roots of the cranial nerves, such as the 8th, 3rd, 4th, 6th and optic nerve causing tabetic optic atrophy, for all these nerves have an arachnoid covering.

Cerebro-spinal syphilis of which I spoke in this classification and varieties comes on about 2 to 5 years after the initial lesion, other tertiary signs are at the same time present in the body. Of this type the mixed form includes the greatest number. The pathology: It is a meningo-myelitis or encephalitis, a real inflammation of the meninges and the spinal cord. There is an extravasation of blood elements, lymphocytes and an occasional polymorphonuclear leucocyte. The pia and the arachnoid originate these cells. There is an hyperaemia, edema, small hemorrhages, and edematous pial spaces; the infiltration along vessel sheaths, degeneration and proliferative processes occur. Softening takes place in spots; at time thrombosis occurs first. So spots scleroses occur in the cord substance, simulating tabetic form, monoplegia, paraplegia, syringomyelia, and multiple sclerosis; hence it may simulate any nerve disease. The gummatous form simulates cord tumor. In the endarteritis syphilitica there is a proliferation of the intima going on to thrombosis, softening of the areas supplied by the blood vessels involved, and endarteritis obliterans. If large vessels are affected one gets aphasia, alexia, agraphia in one; hemiplegia, cerebellar pontine tumor type in another; and lastly it may lead to a psychiatric disease.

The encephalitic type is simple an arteriosclerosis with infiltration in the Virchow-Robin spaces and destruction of brain tissues. This leads to paresis. The mixed form may consist of the combination of

any two, namely; the meningo-vascular, the meningo-myelitic, and the endarteitic.

The symptomatology in each case coincides with the pathology present through which one can explain practically every physical sign and the physical and mental symptoms.

The history of a luetic infection in patients complaining of nervousness, insomnia, or somnolence, loss of memory, the becoming careless, euphoria, disorientation, delusions, hallucinations, pathological reflexes, disturbance of vision or hearing, sensory or motor disturbance, maciation, anemia, increase in weight, ataxia, mental or physical, gastric, laryngial or cardiac crises, premature alopecia, a charcot joint, mono, para, or hemiplegia, Hutchinson's teeth in the hereditary type, multiple sclerotic symptoms, anesthetics, parasthesias, hyperalgesias, symptoms of syringomyelia, aneurysms, systagnus, strabismus, or any other physical or mental sign, should lead the doctor to make a very careful investigation of the patient in order to establish the proper diagnosis and immediately institute the latest treatment, the Swift-Ellis, the intraventricular, and the lumbar puncture methods. In the latter permitting from 10 to 20 cubic centimeters of spinal fluid out when patient has previously received intravenous salvarsan. The theory here is that when the fluid is removed from the spinal cord the salvarsan is secreted into the brain and spinal cord by the choroid plaxi. Also use potassium iodide by mouth, bichloride of mercury by hypo, arsenic and endocrine therapy because the endocrines are damaged by the disease. The treatment should be instituted by men who are experienced in the field. Good results have been reported in the neurological department of Columbia University and in the different universities of Italy, France, Germany and England. Many a case has been either arrested or delayed from further nerve tissue destruction. The favorable cases are the tabetic, para, mono and hemiplgiac when taken early, the psychoneurotics before the mental symptoms of paresis have appeared, and all such case that show organo-neurosis luetic in origin, the beginning of optic atrophy, and hemiparesis. No paretic has yet been cured by any known treatment. So treat the patient before it becomes one. Prevent this disastrous outcome.

One should bear in mind that it is the individual doctor's problem. No one physician should treat syphilis as a local disease but it should be treated as a systemic as well as a nerve syphilis. Each doctor should warn his patients that it takes a long time for this disease to be cured, especially, when the patients come to us from months to years after the initial lesion, at which time the doctor cannot cure the disease but arrest it, and he should advise the patients to get treatment on and off every 6 months to a year throughout life.

The reason why we have so many nerve and vascular disastrous results is because physicians in the past have not treated this disease with due care and precaution. It is pure negligence on the part of the physician in certain cases, and on the part of the patients in other cases; in some it is due to the fault of both. The people at large are not educated to know better about this ailment; knowledge obtained is practically nihil so it is absolutely up to the physician to do his best and prevent economic and social disasters, also. If there were a law in force to compel the physician to report these cases and a law to force such patients to receive treatment until absolutely cured then there would not be any innocent men or women getting such a disease detrimental both to themselves and to the future race.

It has been shown by statistics that New York state spends about thirty-seven million dollars per year for the care of the insane. Out of these there are thousands of paretics which could be prevented by proper laws and rigid treatment. The number of insane in New York State is increasing about 6,000 per year. What is going to become of the economic conditions of the state after a while? According to statistics 35% of the insane people who die in Munich, Germany, yearly, have paresis and 45% of those who die in Berlin have the same. These figures practically correspond with those of New York State. Is it not time to wake up? Why could not this money be spent for educational purposes instead; if only the proper conditions of prevention and treatment were present? Only a little over forty million dollars per year are spent for education, imagine how much could be done socially, economically and for the improvement of the poor with a sum double that spent for education if nothing were spent for the up-keep of the insane!

It has been shown by serological examination of patients presenting the different types of neuro-syphilis mentioned that those who have in their spinal fluid a positive Wassermann, a plus globulin, a very large number of lymphocytes, from one hundred to six hundred, and a negative colloidal gold test, do get their spinal fluid negative in the different dilutions used in the test and their conditions are cured in certain cases, arrested in others; the results of course depend on the amount of destruction of nerve tissue present when the patient comes for treatment the first time; also cases with plus colloidal gold curve, a large number of cells, a plus globulin, and with physical signs, become negative and their conditions arrested or cured, accordingly. But cases whose spinal fluid shows plus colloidal gold, plus globulin, and the presence from 10 to 40 or 50 lymphocytes, it does not make any difference how much treatment they get, do not get better and their spinal fluid always remains positive, showing this to be an encephalitic process with degeneration of the cortex, leading to paresis and death. Nothing evidently can be done for these patients for the mortality is 100%. There are some doubtful cases which present similar serological findings plus physical and mental symptoms and which improve on treatment. In these cases the spinal fluid remains doubtful and the colloidal gold positive as in paresis. This type resembles the meningo-vascular type. Such cases show that they are not parenchymatous in nature as paresis does, but here and there in the brain they show small patches of sclerosis which were previously small gummata and on treatment they cleared up. For such have been the findings when these patients die from a concurrent disease and go on the autopsy table for biopsy.

The advice we give to neuro-syphilitic patients in the various neurological clinics in this city is that they should come for treatment until they are told to remain away for a certain length of time, the time, of course, varies according to the condition of each patient. We usually have them come every six months for further treatment if there is any indication for it.



The Work of the Cardiac Clinic at the Cumberland St. Hospital

ALBERT COMSTOCK, M. D.

Brooklyn, New York.

WHEN Dr. W. H. Abbott and myself contemplated the organization of a Cardiac Clinic, as one of the Association of Cardiac Clinics, we both felt that such a clinic would only be worth our while if we were able to make such an organization as would produce the finest results, both from the standpoint of the patient and from that of getting the most in scientific material to produce diagnoses that meant something, and data that would serve for actually learning something. As we feel that we have in part achieved these results, and believe that our organization may be able to offer some points to both other clinics and to the practitioner as well, we feel justified in offering this description of our clinic.

Dealing, as we do almost entirely with ambulatory cases, employed for the most part in more or less active work in business or the home, the need and the opportunity for careful and accurate estimation of functional ability is great. And, as this knowledge constitutes perhaps the most important part of all cardiac work, our methods may well serve as food for consideration for those outside.

Before the inauguration of the clinic we felt that very thorough history, physical examination and special tests should be correlated to establish our diagnosis, and that close follow up observation was of prime importance. To do this properly, two things are requisite; good social service and clinical assistance, and a history thorough enough to take in all important and interesting features, and yet time saving, both in the taking and in the subsequent reference.

The correlated units employed are:

1. Social service.
2. Admitting clerk, who is also the historian.
3. Actual cardiac department.
4. Special test department.
5. X-Ray, electrocardiograph, and polygraph department.
6. Pathological laboratory.

When a patient enters, he is seen first by the social service department, who take a careful history, family and personal, laying special stress upon home and outside labor conditions, with consideration for heart strain. The past history is mainly devoted to diseases having an etiological bearing on heart disease, such as the exanthemata, streptococcic group, teeth, throat and other infections, syphilis and alcoholic and tobacco habits.

This history comes in to us with the patient, and we take a further history in this form.

1. First onset of cardiac symptoms.
2. Dyspnoea. Amount of exertion producing same, if present.
3. Orthopnoea. Careful description to differentially diagnose.
4. Cough. If present, description.
5. Palpitation.
6. Edema. Where.

7. Angina. If present, description to differentially diagnose.

8. Tinnitus aurium and fainting.

We do not use the scratch history at all, but the above sequence is followed in all cases so that comparison of cases and subsequent reference is greatly facilitated.

I think that this history, carefully taken, will elicit and record all the data we need for accurate diagnosis, and differential diagnosis.

The patient is then stripped, and a thorough examination from head to foot is made. In recording this examination, very little writing is done, as we use the anatomical stamp system entirely. We only fill in the abnormal findings. With practice, such a routine examination may be very thoroughly made in a very few minutes.

The general examination is filled in on a stamp of the entire body, and mainly dwells on the following: Cyanosis and dropsy, anemia, exophthalmos. Teeth, tongue and tonsils. Thyroid enlargement, glands, pulsations. Lungs. Enlargement of liver and spleen, ascites. Edema, cyanosis or tremor of the extremities. The heart findings are made on a special stamp of the heart, and comprise. Location of apex, stated in inches from the midsternal line, and the intercostal space. Palpatory findings (thrills, etc.) Character of sound, murmurs if present maximum intensity and transmission.

A special space is left for the pulse, rate, and description, and the blood pressure. At the bottom, a tentative syndrome is made.

A second sheet for follow up, and a third for medication is appended. When the X-Ray sheet, the special test and the laboratory sheets are added the history is complete, and the final syndrome, with Class of Function is made on the manilla paper folder that the history is kept in.

Our examination made, the patient is returned to the social service department who make appointments for the X-Ray, and the special tests, as well as ordering urine specimens, and Wassermanns, this is all routine. Up to this point we prescribe no treatment, unless the case urgently needs it, as it interferes with the further examinations. All of the cases are put upon Castor Oil preparation before the tests, unless specially contraindicated. If ordered, a Goetsch Test is done by the special test department. It takes several visits for the patient to have all this work done, and in some ways this is undesirable, but seems unavoidable, both from the organization, and because the tests would conflict, for example, the functional or the Goetsch could usually not be done after the upset incidental to the Wassermann. Even the functional test is unfavorably influenced by any other procedure.

When all of this data is ready, the social service department sends the case into us again, and the entire data is gone over, and the case syndromed, that is, a diagnosis, with all component parts of the case made. We are then in a position to make a proper estimate of the condition of the case and intelligently prescribe the treatment, whether diet, hygiene, exercise or drugs. As mentioned before, this syndrome is copied on the outside folder that the condition of each case may be grasped at a glance. Such a syndrome for example would be.

“John Doe.

Chronic Cardiac Disease.

Aortic Regurgitation and Stenosis.

Class 1 Functional.

Normal Urine, Negative Wassermann.

The Classification of the Case according to the standards of the Associated Cardiac Clinics is also added. In doing any research work this syndrome furnishes all the guide we need for data. Also satisfactory cross indexing may be done from it.

We lay great stress on the functional test, for, no matter what the other factors of the case may be, it is this data which puts into our hands the information enabling us to prognose the case, and lay out the amount of exertion he or she may safely do, and make recommendations to the Social Service Department as to home and business life for them to carry out in their follow up work.

We are at present using a test that is probably inferior in many respects to the J. C. Schneider one used at Mitchell Field, which latter test has, I believe, a more scientific basis of comparison, and yet, the classification of patients we make seems so far to have checked up with remarkable accuracy with the other data, and with the prognosis we have based upon it.

The patient sits quietly for some few minutes, until the pulse counted twenty seconds, for three alternate intervals is equal, and then the pulse, respiration, and systolic and diastolic pressures are noted. He then undergoes exercise to dyspnoea. We use stationary running. I do not believe in the so-called "standard exercise" as we are dealing with cases most of whom have very little cardiac reserve, and in whom the attempt to do standardized exertion might readily produce dangerous results. When we have produced dyspnoea in that case we have called into play what reserve he may have, and that condition is the basis of our test. Immediately after exercise, the systolic and diastolic pressures are taken, as well as the pulse and the respiration. They are taken at five minute intervals for twenty minutes. Based upon the results, we have found that cases may readily be typed in one of four classes. There are surprisingly few vague border line types.

1. The systolic pressure rises 5 or more millimetres, and slowly (within 20 minutes) returns to normal, but not below. This class of case will inevitably show a normal rise of pulse, not more than 10 beats, which is in accordance with what Schneider allows. When the respirations rise more than 15, I look for respiratory factors (chronic bronchitis, pleurisy or asthma). Whatever the lesion, the cases in this class may confidently be given a good prognosis, provided they can be properly cared for. We have occasion to prognose cases referred to our clinic for an opinion as to operative risk or the continuance of pregnancy where the sounds have been alarming to the operator, but where we can confidently advise operation or the continuance of pregnancy, and the cases will carry out our prognosis.

2. A rise of blood pressure occurs, but the pressure, after a shorter period of maintenance will fall to below where it started. This, in our opinion, shows some reserve, but a weakened myocardial state, as evidenced by the exhaustion fall. Class two cases invariably show dyspnoea on moderate exertion, and often some edema. Their prognosis is fair, but their reserve must be carefully conserved, or they will easily go into what is ordinarily called decompensation. This class usually shows a pulse rise of more than ten.

3. The pressure does not rise more than three millimetres, if at all, and immediately falls to below the starting point. These cases have practically no reserve, and must be rated and handled accordingly. A very pronounced pulse rise occurs.

4. Here an immediate drop occurs, and dyspnoea is also immediate. We rarely see such cases, as they mean no reserve, and are actually decompensated. As such they do not require a test, nor is it safe to do it.

It will be seen that the elevation of the systolic pressure is actually the index of the reserve. It is certainly a fact that a myocardium which is so impaired as to be unable to maintain pressure, may still have enough reserve to temporarily make pressure. This explains why sometimes a case showing few symptoms will show class 2 functional and immediately demonstrates the great value of our work in prognosis and treatment.

In all cases where unexplained tachycardia or dyspnoea are present and where tremor or nervous hypertension are seen, we order a Goetsch test done. Many interesting cases are picked up in this way. We treat our hyperthyroidism cases in three ways.

1. Elimination of all infection. Cooperation with the dental, X-ray and Larngological departments.

2. Rest. Physical and nervous.

3. Conservative. X-Ray or Radium exposures, together with appropriate medication.

The Cardiac Clinic is probably not the avenue by which the worst thyroid cases reach the hospital, which explains why we have none that are serious enough to be surgical. If there were proper cooperation with the other departments, we should probably pick up more interesting thyroid hearts than we do. We are going to try and secure this cooperation. We look on these cases with the facilities for observation that we have at present, as myocardial exhaustion from overstimulation, but may have more to offer when we have secured our Electrocardiograph. We have as yet had no cases of failure from this condition.

I am beginning to eliminate from our nosology, the term "decompensation." I encourage in its place merely a statement as to the amount of cardiac reserve present. This is of more than theoretical importance, as the attempt to consider compensated and decompensated cases results in a complete misapprehension of the cases. Cases which do not fall into class two or three, would be considered as compensated. From the previous statements made, it will readily be seen how entirely different is our conception, we are dealing with the reserve, and it is only by so dealing that we can properly grasp the case.

To my mind, any heart which shows the slightest deviation from normal, is not compensating. When any dyspnoea or lowering of the reserve index is present, that patient is decompensating. What is commonly called decompensation is really one of three conditions. Auricular fibrillation, auricular flutter, or dilatation.

Another disease which we eliminate from our nomenclature is so called "Angina Pectoris." We find that many of our cases present pain that is typical of angina, i. e., aggravated by motion, or nervous disturbance, and occurring in the area supplied by the upper dorsal nerves and by the brachial plexus, and that these pains range all the way from slight twinges up to severe attacks, depending upon the underlying lesion, and the severity of the provocative cause. This is in agreement with Mackenzie.

I have gone into these digressions to illustrate the work we are doing, and some of the lines along which we hope to report later.

Our studies of arrhythmia are at a deadlock as we lack at present an Electrocardiograph and a Polygraph, but we are hoping to be able to get both later. I surely believe that such work will yield additional and highly valuable information. It will enlarge our knowledge of function and prognosis, and check up on our medication.

Our drug therapy is very simple. Digitalis, Nitroglycerine, Aconite and Bromides, together with Castor Oil, are our main remedies. We use diet after the theory of Dr. Louis F. Bishop, and supervise exertion very carefully.

We hope to have some reports to publish later on Digitalis and Aconite.

An Outbreak of Typhoid Fever and its Cause

S. R. BLATTEIS, M. D.

Brooklyn, New York

THE literature of typhoid epidemics cites occasional instances of an outbreak due to vegetable and fruit infection.

What follows is an account of an epidemic due to the eating of watermelon. Nowhere among available health records or in the literature up to that time is there a similar instance reported.

This epidemic came under my observation while Acting Chief of the Division of Epidemiology of the Department of Health.

The outbreak may best be given in narrative form as follows:

On July 12th, 1915, a group of children, eight or ten in number, all from one block, noticed cast up along the beach a few blocks from their home a large number of watermelons, estimated at over fifty. Upon closer examination they saw that the melons were either open at one end or split along the body; all without exception were damaged this way. The children could not eat that part of the melon near the damaged end on account of the extremely salty taste; more than half of each fruit had to be sacrificed and even then this taste was not completely absent. The children also carried home what they could and distributed pieces to other members of the family. In this manner a considerable number of individuals who had not been at the beach were similarly exposed.

From one to three days after the ingestion of the melon the children and adults, with but few exceptions, suffered from an acute attack of gastro-enteritis characterised by nausea, vomiting, severe abdominal cramps, diarrhoea and in some instances marked prostration; the attacks varied in severity. They all recovered and after a perfectly well period, some of the children showed signs of illness and on July 24th, 12 days after the melon party, appeared what later was reported to be the first case of typhoid fever in a child eight years of age; then in rapid succession appeared other cases, one on the 26th and 27th, three more on the 28th, one on the 31st, two more on the 1st and 2nd of August, and the last two on August 7th and 14th, making a total of 12 cases.

A table of these cases shows the average age to be $10\frac{1}{4}$ years with a maximum of eighteen and a minimum of 3 years; two families each had three cases, one family two cases; the earliest onset was twelve

days after the melons were eaten, the latest 33 days. The average duration of the disease was $25\frac{7}{10}$ days, 38 days being the longest and 12 days the shortest course. No secondary case developed. The prolonged incubation period, 33 days, of one case is explained by a prolonged prodrome since the duration of this case was only 13 days as compared with the average of over 25 days. Undoubtedly for a week or more, the child belonged to the type of so called "Walking Typhoid."

The clinical data, such as the type of temperature and pulse, the presence of rose spots, enlarged spleen, etc., did not differ from the average type.

Upon what evidence is a diagnosis of typhoid of this series of cases based?

1. The period of incubation: this averages 18 days and corresponds to the average given in the literature of a large series of cases.

2. The Widal test: this was requested in only five of the twelve cases; of these five three were positive, one was doubtful and one negative; this again corresponds very closely to the results that would be obtained in any five cases of typhoid fever.

3. The diazzo reaction: positive in all 7 cases examined, an unusually large percentage.

4. Examination of feces: this was done in eight cases; in five, two examinations were made; in one of these cases, the typhoid bacillus was isolated twice. In the three cases where only a single examination was made, the bacillus was isolated in one instance.

5. Duration of the disease: $25\frac{7}{10}$ days agrees with a series of 500 cases in which the duration was 29 days.

WHAT WAS THE CAUSE OF THIS OUTBREAK?

Investigation of the milk supply of the seven families concerned showed that three companies were making daily deliveries and two families used exclusively condensed milk. Furthermore the same milk was being supplied to families all about that particular section without any increase in the usual number of cases. The City water supply is excluded on account of the sharply localized character of the outbreak. Detailed investigation of the bureau of Food Inspection failed to produce any evidence in the food supply of that immediate vicinity that could be interpreted as a possible cause. We, therefore, go back to July 12th, the day on which the watermelons were eaten and note the following facts:

All the cases had eaten some of the melon; not all the children who ate the fruit contracted the disease. That the children who went to the beach on that day did not do any one other thing in common which might be considered as a cause besides the one in question; they did not bathe, they did not drink water from any one place, they bought no food products, such as ice cream, etc.; the only one thing that all these children did in common was to eat the water melon.

Furthermore, some of the typhoid cases were not at the beach at all and had no causative relation whatever to those that were, only in that they ate of the same food product, namely the water melon. The preponderance, almost conclusive evidence, points to the water melon as containing the etiological organism of this disease.

How did the melon become infected? There are two theories. At the outset it must be recalled that the damaged condition of all the

fruit allowed the water to permeate throughout all portions. The sound fruit either fell off a barge into the water and being buffeted about was soon in condition to allow the waters of the bay to contaminate it, or they were already damaged and possibly contaminated before being thrown overboard. The former method is by far the more likely. The melons were picked up in the portion of the upper bay immediately above the Narrows and where within a mile of each other two large trunk sewers empty, one draining the Bay Ridge section of Brooklyn where an epidemic of 100 cases of typhoid fever was at that time raging.

From the evidence here presented it is concluded that an out-break of Typhoid Fever numbering 12 cases was due to the eating of water-melon.

A Case with High Creatinin Retention and A Post Puerperal Psychosis

J. F. W. MEAGHER, M. D., F. A. C. P.

Brooklyn, New York.

THE following case is briefly reported because it presents two interesting features, both in reference to prognosis.

The first is a medical one and refers to a high creatinin retention, with an apparent recovery. The second feature is a psychiatric one, and refers to a condition where ordinarily one gives a very good prognosis, in which the course was prolonged, and the picture later took on certain characteristics of another disease in which we usually give a guarded prognosis, as to mental recovery. The toxic damage to the brain in these puerperal cases is often severe.

Without going into details the following is a brief history of the case: I was asked to see Mrs. E. T., thirty years old, by Dr. Joseph Sheridan of Richmond Hill. Her previous history was negative. Her personality make-up was said to have been normal. She had given birth to her second child on April 19, 1921. The following day she had seven convulsions. Dr. Sheridan reported that her urine showed a great amount of albumin and numerous hyalin casts. After a few days her urine became normal. But she now developed a psychosis, characterized by complete dissociation of the personality, visual hallucinations, inability to recognize her family, misinterpretations, amnesia for the period of her confinement, with constant reiteration that she was going to have a baby. It was almost impossible to get her attention.

She was admitted to the neurological service at St. Mary's Hospital, but after four days her maniacal condition became so severe that I had to commit her to the Brooklyn State Hospital. There were times when she was semi-comatose. At others she raved continuously. She was extremely irrational and so violent that it was necessary to restrain her a good part of the time. She urinated involuntarily. She had a slightly irregular pulse. Because of her intense mania, it required three nurses to hold her when she was allowed out of restraint. A proper neurological examination was out of the question. It was impossible to take her blood pressure.

At St. Mary's Hospital her kidney functional test was 15%. Her urine was negative on two examinations there.

The following blood chemistry examinations were made by Dr. Moitrier:

	creatinin	urea	sugar
April 26	6.6 mgm.	68 mgm.	.260%
April 29	6.8 mgm.	(not enough blood taken for these two tests.)	
May 11	3.2 mgm.	32 mgm.	.180%
June 20	1.6 mgm.	22 mgm.	.096%

Myers and other investigators have shown that a high creatinin retention portends a grave outlook. This woman exhibited a high creatinin retention; also a moderate urea retention, and a hyperglycaemia. Normally one should find but 1-2 mgms. of creatinin in the blood. Ordinarily, creatinin is readily eliminated by the kidneys. Most clinicians say that patients presenting 5 or more mgms. of creatinin in the blood will almost invariably die. Cases of Acute Nephritis are probably excepted from this rule. Though the blood sugar in this case was high, no sugar at any time appeared in the urine.

The interesting feature about this case is that the patient with a large amount of creatinin, urea, and sugar in the blood has apparently recovered physically, in spite of our early pessimistic attitude. Of course only three months have passed since the onset; a record of the physical condition one year from now would be of great value.

Mentally, however, she has shown practically no improvement. From the beginning we thought that she had an Infection-Exhaustion Psychosis. She is still inaccessible; remains almost mute, and never talks spontaneously. She is confused and perplexed. Her excitement at times is extreme. She early presented the picture of an acute hallucinatory confusion. At the present time there are some elements suggestive of a Dementia Praecox reaction-type. One might mistake very readily her perplexity for negativism. Doctor Soper of the Brooklyn State Hospital, under whose care she now is, also feels that she is an Infection-Exhaustion patient. A Manic-Depressive Insanity can be easily ruled out.

The lessons that this case teaches are: first—that a case with high creatinin retention, though grave, may recover; that one might fail to find a nephritis if he depends on the urine examination alone; that a marked hyperglycaemia may exist without sugar appearing in the urine.

Another man whom I committed to the Kings Park State Hospital last year, had in addition to his mental disease, a chronic interstitial nephritis with a high creatinin retention—5.5 mgms.—and though physically he looked fairly well, and his urine at all examinations was apparently normal, however, he died two months later.

second.—Insanities occurring after childbirth no longer are designated as Puerperal Insanity, but in nearly all cases belong to one of three groups—

1. Dementia Praecox.
2. Manic Depressive Insanity.
3. Infection-Exhaustion Psychosis.

In the last two groups the physician can as a rule give a uniformly good prognosis. However, we do see some Infection-Exhaustion

cases, which group ordinarily furnishes the most rapid recoveries in the realm of mental diseases, run past the 1-3 month period we expect the course to run. In these exceptional cases the outlook for recovery of a full mental health often seems dubious. This case is one of this type. I wish to express my thanks to Dr. Harris and Dr. Soper of the Brooklyn State Hospital for permitting me to follow up the condition of this patient since she has been committed to their care.

Absence of Acid Forming Bacteria in Intestinal Toxemia

W. H. DONNELLY, M. D.

Brooklyn, New York.

THE work of Libman, Connellan, Dwyer and others has shown conclusively that severe intestinal toxemia in adults is often associated with, and apparently due to, a temporary or permanent disappearance of acid forming bacteria from the colon. This quite naturally results in an over-growth of the saprophytic, anerobic, non-motile bacilli, which produces putrefaction. As a result, in these cases, there is noticed a characteristic foul odor in the stools. This is in contrast to the condition occurring when the acid formers gain the upperhand. Here we have acid, green, bubbly, watery and irritating stools which excoriate the buttocks. In the average case of intestinal toxemia with absence of the acid formers, improvement follows the institution of a diet low in protein, and high in starch, with administration of sugar of milk and cultures of the acid forming bacteria by mouth, especially those of the *B.*, acidophilus. The acidophilus is a normal inhabitant of the human intestine, growing in conjunction with the colon bacillus and has a very high acid forming power. In severe cases, however, this treatment is not sufficient and colonic irrigations are necessary followed by the instillation of lactose solution, followed in turn by the injection of cultures of colon bacilli. These cultures are made by washing agar plates of the colon bacillus with a solution of cane-sugar. This has become a well-recognized and definite condition in adults with an equally definite treatment. In children, however, this absence of the colon bacillus and the other acid forming bacteria has not been much noted, but that it can exist is evidenced by the following case:

J. W., a four-year-old girl, whose diet had been faulty, had an attack of convulsions which lasted almost continuously for 24 hours, during which time stools were extremely foul. Purgation, followed by a starchy diet, produced some improvement, but a persistently foul odor in the bowel movements, with a history of pin worms prompted a thorough examination of the stools which revealed a complete absence of bacteria of the colon group. Temporary further improvement followed the administration by mouth of cultures of acid forming bacteria, but lasting and satisfactory results were obtained only after the rectal instillation of cultures and institution of colonic irrigations. This absence of acid forming bacteria from the large intestine of

quite young children is probably much more common than has been heretofore thought and probably accounts for a large number cases of severe intestinal toxemia in children. It would seem, therefore, that in cases of gastro-intestinal toxemia in children accompanied by a foul odor in the stools a routine examination of intestinal contents should be of great service in making a diagnosis and in prompting the proper line of treatment.



A Letter from Sir James Mackenzie

*The St. Andrews Institute for Clinical Research
St. Andrews, Fife.*

24th Feby. 1921

Dear Dr. Cruikshank,

I beg to thank your Society for the honour they have done me in electing me an Honorary member of the Brooklyn Cardiological Society. I have read your address with much interest, and if you will permit me, I will make some suggestions for your consideration. You will excuse my interference, but the fact that I am an honorary member, and also have reached the time of life when my experience may be of some value, I feel my suggestions may not be out of place.

(First) It is 40 years since I began the use of graphic methods, and I have seen their development, and I would urge your Society not to be misled as to their relative importance. There is a tendency to concentrate attention upon such methods to the neglect of far more important methods, in fact an attempt should be earnestly made to do without them excepting for research. The phenomena they can reveal can, in a great majority of cases be recognized by the trained senses. The instrument should be used in order to guide one while the senses are being trained. Thus probably 95% of the irregularities found among patients, can be recognized by the trained senses. My reason for this attitude is that if one limits the use of this kind of knowledge to those who can use instruments the vast majority of doctors will never be able to employ the knowledge in practice.

(Second) The essential question in all cases is prognosis—what's going to happen to a man who shows an abnormal sign? To begin with, the elementary principles of research into prognosis has not yet been understood and nowhere in the literature of medicine is there an intelligent description of the methods to be followed. Yet the question of prognosis arises in nearly every case the doctor sees.

(Third) No one can undertake the investigation of prognosis in heart affections until he knows what are the symptoms of heart failure. Again this is a subject which has never yet been properly investigated, and of late years, particularly since the introduction of mechanical methods, this kind of knowledge has had a set-back. The reason for this is that the early signs of the heart failure cannot be revealed by mechanical device.

(Fourth) The early signs are invariably sensations of distress felt by the patient. So far, these sensations have never been investigated with that care and precision which is necessary to their due understanding.

These are some conclusions I have come to after all these years of investigation. Many years ago I came to the conclusion that there was a great defect in medical knowledge in regard to understanding the mechanism of symptoms. This was forced upon me during the war. When I carried out an investigation on the Soldier's Heart I found that 90% of the cases of sickness from heart trouble the patients suffered from illness of which the heart symptoms are but a portion of the phenomena were classed as heart cases simply because the heart signs were the most dominant. A continued investigation showed that these cases suffered from some infectious trouble

in which the toxins had disturbed the heart's action. I was so impressed with this defect that I dimly perceived that the reason of the defect was that medical knowledge had not gone so far as to be able to recognize the mechanism and significance of symptoms, consequently I gave up my work in London and started here an Institute specially devoted to this kind of research. In the course of our investigation we have discovered a theory which explains a great many of the more obscure symptoms. Already we have applied this theory and we can see that in affections of every organ, and particularly of the heart, it is going to be of the very greatest importance.

I send you a preliminary communication upon this subject which I would like your society to seriously consider.

I have roughly indicated these lines of thought in a book upon the "Future of Medicine," which I will send to you.

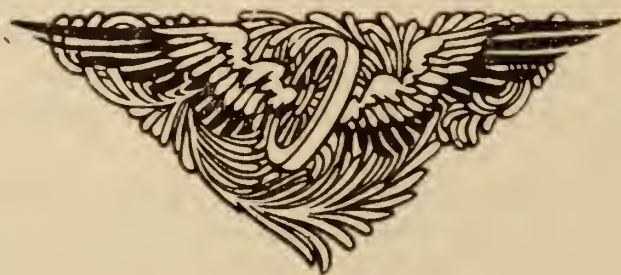
As I trust you have got doctors who are engaged in general practice and who do all forms of work such as surgical operations and midwifery, I would suggest that your society should take up the consideration of Heart Disease in Pregnancy. From reading recent text-books the knowledge of this portion of medicine is worse than it was 40 years ago. I was so struck by this that some months ago I hastily wrote a small book dealing with the subject, drawn from my investigations about 30 years ago. I had studied it at that time but found I was so ignorant of the meaning of symptoms and particularly their prognostic significance, and was so ignorant of the subject of heart failure that I left the subject in order to remedy these defects. When it is published I shall send you a copy of it.

In sending these books, I do not presume to dictate to you what you should do. I merely give them in the hope that they may help men who pursue similar lines and who may be saved going through all the drudgery I went through to lay the basis of an intelligent conception of the subjects. Even if they are used for the purpose of criticism and refutation, progress will certainly result.

Believe me,

Yours sincerely,

(Signed) J. MACKENZIE.



Brooklyn Cardiological Society

April 5, 1921.

Resolutions adopted by the BROOKLYN CARDIOLOGICAL SOCIETY at its third meeting held in Brooklyn, New York, U. S. A., March 31, 1921.

WHEREAS: The Brooklyn Cardiological Society is a society recently formed, namely, on November 29th, 1920, and;

WHEREAS: The said society is the first society organized to be devoted solely to the scientific study, investigation, and discussion of Cardiological Subjects, and

WHEREAS: The said society is composed of physicians who have had extended experience in the practice of general medicine, and who have added to that general experience special training in modern cardiology, to which branch of medical science Sir James Mackenzie, M. D., F. R. C. P., L. L. D., etc., has been so great a contributor, and

WHEREAS: The said Sir James Mackenzie has been duly elected an honorary member of the said Brooklyn Cardiological Society and has signified his acceptance of said membership, at the same time sending from St. Andrews, in Scotland, as a gift to the said Society an inscribed copy of his book entitled "The Future of Medicine," published in 1919, and copies of his printed articles entitled "The Defects of Medical Practice," and "The Theory of Disturbed Reflexes in the Production of Symptoms;" and a letter addressed to our President containing valuable advice and suggestions for the study of cardiological problems, all of which are highly prized, and

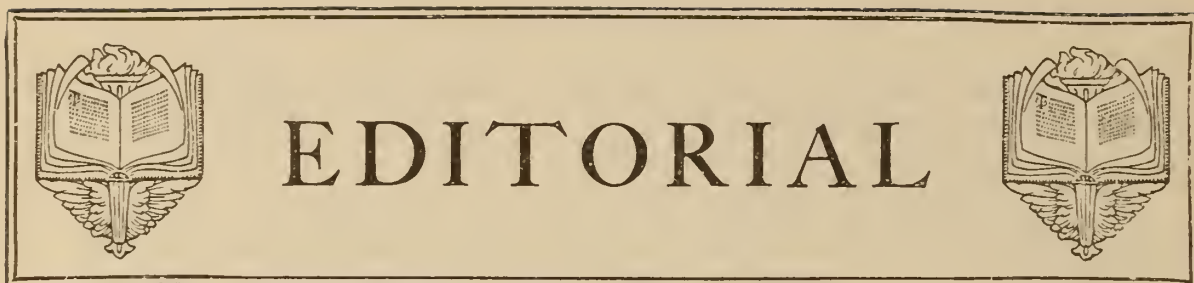
WHEREAS: The Brooklyn Cardiological Society recognizes in Sir James Mackenzie a skilled physician of the strictest integrity of purpose, a worthy example, whose untiring and ceaseless energy has served to enlighten the medical world, a great clinical teacher, an author of renown, one of the greatest cardiologists;

THEREFORE BE IT RESOLVED, That the Brooklyn Cardiological Society extend to Dr. Mackenzie a vote of thanks for his book and reprints and his letter of advice and encouragement, and that a copy of these resolutions be transmitted to him, and that copies be sent to the various medical journals in this country and in Europe, for publication, and that a copy be spread on the minutes of this Society.

WILLIAM J. CRUIKSHANK, M. D., F. A. C. P.,
President,
102 Fort Greene Place,
Brooklyn, New York,
U. S. A.

William W. Laing, M. D.,
Secretary,
195 Greene Avenue,
Brooklyn, N. Y.,
U. S. A.





The Physician's Opportunity

Upon reading a recent article in the New York City Board of Health Bulletin regarding the Schick test and its application one item stood out strikingly because of its immediate application to practitioners of medicine in general. After a discussion of the value of the Schick test for diagnostic purposes and some straightforward remarks in regard to the value of the toxin anti-toxin method of immunization against diphtheria, some comparative figures were given showing the results obtained by Health Department observers and physicians in general. The very small number of reported cases from general practitioners leads one to wonder whether this test and prophylactic measure are being used by the profession generally, and the conclusion is reached that very few physicians are taking advantage of a procedure which not only is easily applied, but also could be made a source of added income whereby patient and doctor would be benefited alike. This is a sordid way to call attention to something which should be as generally employed as smallpox vaccination, but oftentimes it seems necessary to appeal to that side of human nature. It did not take long to bring diphtheria antitoxin into universal use. The reason is not far to seek. It was a positive help, it gave definite results and its use was suggested by the condition in which the physician found his patient. It is intensely human to rise to emergencies when the situation is sufficiently dramatic, and to let well enough alone when there is no imminent danger threatening. If children are well, neither their parents nor their physician think much of precautionary measures against remote accident, as is proven by the gradual falling off in vaccination which has led to the recent campaign that the Health Board has been conducting. A flurry of smallpox would result in everybody, but the more rabid anti-vaccinationist, offering his arm to be scratched. As time goes by there will be an increasing popular demand for this simple and effective precautionary measure, but that demand should originate with the profession who, by their failure to be pioneers in insisting upon its use, are illustrating why it is that they have constantly to be on the defensive in these days when inimical legislation is being directed against them. If the profession, as a profession, does not sit up and take notice they are likely to be disagreeably coerced.

H. G. W.

Keep Out

These two words have been impressed upon the writer during the past summer on the repeated occasions when he has been compelled to drive the length of Long Island. There is hardly a wayside spot that is attractive for picnicking that is not labelled with this significant sign "Autoists keep out." More often it is just the plain, brusque "Keep Out"; occasionally it is "No Trespassing." There was a time when the autoist could drive wheresoever he would and stop along the roadside where it pleased him, and go his way. Today he is no longer a welcome guest but a nuisance. The reason is not far to seek. There are four main arteries of travel on Long Island and each of them, including the motor parkway, is littered with the remnants of cardboard boxes, wrapping paper, discarded bottles, and fragments of food. It is as easy to gather up the wastage and to bestow the scraps where they will not litter the landscape as it is to scatter them broadcast. For one who is a nature lover there is nothing more irritating than to find these evidences of human carelessness, because it is not merely that they are an offense to the eye, but their increasing presence is the token of a spirit that is becoming a national menace. The same reckless selfishness that scatters papers and broken bottles along the roadside is appearing in other forms in much of our civic life. It masquerades as "self-determination," whereby adolescent girls and boys are endeavoring to substitute their callow desires and inexperienced theories for the approved and well-tried institutions that have borne the test of time. Directed by crafty self-seekers it is being used to destroy the wholesome restraints of established authority in matters both social, religious, and political. And everywhere those who would restrain it are branded as reactionaries, and held up for censure because, forsooth, they strive to impede the "new progress," the trend of which they see all too clearly. In education, in art, in literature, as well as in politics this spirit is all too clearly seen if one will but take time to search for it. One could moralize for many pages did he not realize that the casual reader would skip from the end of the first paragraph to the signature because it bores him to be preached to. Cato, the censor, preached it in the Roman Republic and in spite of his preachings Rome went to the wall. Cassandra prophesied it in the streets of Troy and none would listen. Egypt, Persia, Greece and Rome are examples of what the growth of this spirit in time brings to pass, but ancient history is no longer popular, and we are assured that nothing of that sort can happen in America. "Keep Out" is indeed a portentous warning.

H. G. W.

The Malignancy of Cats

This subject is one that has received attention on previous occasions in these pages. From suspicion, based upon repeated and varied experiences, it is now the editorial belief that cats, at least tom cats, are directly inspired by the devil. Some years ago it was our privilege to correspond at some length with a former Commissioner of Health in regard to the disposal of cats after death. The incidents leading

up to that occasion were detailed, and may now be fully summarized by stating that the body of a cat which had died a violent death had been placed in front of a neighbor's house apparently with the hope that the Department of Street Cleaning might have its attention drawn to the remains, and its disposal insured. Hardly had the cat been placed there when the wind shifted and a carrion reek was wafted into our office for several days until we had learned that there are post-mortem troubles that even a dead cat is capable of inflicting. Whether or not the tradition has been passed on and the vendetta assumed by subsequent generations we cannot say, but the inference is at least strong.

During the summer months the house was closed and carefully protected against intrusion, but a chance visit by a member of the family discovered two new-born kittens in the deepest recess of an inside cellar cupboard. We have been taught to believe that kittens postulate at least one parent cat, and usually two, but neither mother nor father could be found, nor could any mode of ingress or exit be demonstrated. This in itself was a suspicious circumstance, and argued supernatural powers. Upon their removal to the outer world the stronger of the kittens shortly disappeared and was later found in front of the office of our substitute. Apparently it had read the out-of-town sign, and hunted up the new address in the hope of being properly cared for. Upon our return shortly afterward the house was found to be infested with cat fleas. It was an extremely pretty sight to see them leaping about over the hardwood floors, and the cordiality of their caresses was indeed touching.

The explanation of this remarkable experience is indeed difficult. Cats are not physically strong. In fact an ancient saw describes extreme weakness as "weak as a cat." Such being the case forcible entry is precluded. Supposing accidental entry to have been possible, how does one explain the presence of the kittens which were starving, and of which only one had its eyes open, and the fact that all windows and doors were tightly closed? Even among cats the maternal instinct is strong, and we do not feel it right to charge a mother cat with voluntary abandonment. It seems more natural to assume that the mysterious appearance of these kittens was due to malignant animal influence—a process well understood among the followers of Mary Baker Eddy—that the kittens were stolen by a malignant tom cat, and that aided by the powers of darkness he planted them, infested them with fleas, and then departed, closing the front door behind him and locking it from the outside, a thing easily done by a cat of this malignant disposition. No blame attaches to the fleas. Although legally liable as accessories after the fact, they only followed out their natural proclivities and became, as it were, cats paws of fat. Further details of this problem in the supernatural will be gladly furnished to any honest investigator from the Society for Psychical Research on presentation of the proper credentials.

H. G. W.

MEDICAL BOOK NEWS

Edited by JAMES M. WINFIELD, M. D.

All communications, books for review, etc., should be addressed to the Editor of this Department, 1313 Bedford Ave., Brooklyn, New York

October, 1921

4 Pages

OPERATIVE SURGERY.

OPERATIVE SURGERY. By John J. McGrath, M. D., F. A. C. S. Sixth revised edition. Philadelphia, F. A. Davis Company, 1921. 863 pages with 369 illustrations. 8vo. Cloth, \$8.00.

This excellent text-book has just gone through its sixth edition, in itself proof of its great popularity. Like its predecessors it is well prepared and profusely illustrated. Among its other many good features may be mentioned particularly the author's effort to present an extensive description of the surgical anatomy of each respective region. This will appeal especially to the beginner, but will be no less appreciated by the more experienced surgeon.

The various operative procedures are treated with considerable detail, and in a clear and comprehensive manner. While every subject is well covered the author has devoted a very large part of the book to the surgery of the abdomen. The variety of operations on the stomach, the small and large bowel, the gall-bladder and kidneys makes this a practically up to date treatise on the surgery of this part of the human anatomy.

HERMAN SHANN.

SURGICAL CLINICS OF NORTH AMERICA.

THE SURGICAL CLINICS OF NORTH AMERICA. Volume 1, Number 2, April, 1921. (New York Number). 329 pages, with 115 illustrations. Published Bi-Monthly (Six numbers a year) by W. B. Saunders Co., Phila. & London. Paper \$12.00 net; cloth, \$16.00 net.

In this number we see reflected the wonderful surgery that is being done in our great metropolis. Dr. Erdmann starts off this issue with his usual variety of cases, and with his customary quick, clear and most thorough method of execution, so characteristic of this famous surgeon. One should really see Dr. Erdmann operate to appreciate him.

Dr. Hartwell's talk on the treatment of cancer of the rectum is exceedingly instructive.

Many men are still somewhat hazy as to just what to do in any particular case. Dr. Hartwell's discussion makes the indications for the various operative procedures quite clear and this will be appreciated especially by those whose experience has been somewhat limited. The case of ileocecal tuberculosis should receive particular attention. While his treatment may appear extremely radical yet he has saved his patient from a life of helpless invalidism. It is to be regretted that the pathologist usually does not support the surgeon in the diagnosis. This is chiefly due to the fact that the pathologist does not stain the tissue for tubercle bacilli.

Dr. Whipple's article on the surgery of the biliary tract is well worth reading. The questions and answers by the students reminds one of the clinics of the late Dr. John B. Murphy. Though apparently elementary, yet many important points are brought out that are of great value. The case of complete cicatrization of the common duct shortly after a cholecystectomy will recall to the mind of many a surgeon his own occasional experience with such unfortunate sequela. The happy outcome in this case, after a very radical secondary operation is particularly gratifying and will help us save many a patient's life in the future.

Dr. Heyd's discussion on the diseases of the upper abdomen deserves particular attention. His method of analysis of symptoms with special reference to diseases, incident to this region and his logical conclusions are most admirable. The reviewer would urge every attending surgeon to supply a copy of this number to the interne staff of his hospital; for it will surely prove a great aid to them in the taking of histories and the proper interpretation of symptoms.

The other contributions to this number are no less interesting or instructive. But space does not permit of a detailed description. One need only mention Dr. Albee's wonderful article on plastic surgery of the hip and femur; Dr. Leo Burger's extensive discussion on complications of urinary lithiasis; Dr. Gibson's and Dr. Johnson's interesting cases of pneumococcus peritonitis; Dr. Pool's classical

description of the pathology, symptoms and the indications for the various operative procedures in the treatment of cervical rib; Dr. St. John's article on empyema; Dr. Martin's on the tuberculosis of the lymphatic vessel and Dr. Stookey's on brachial plexus injuries.

HERMAN SHANN.

MEDICINE FOR NURSES.

MEDICINE FOR NURSES. By John Henderson, M. D. London, Edward Arnold, New York, Longmans, Green & Co. 1921. 263 pages. 12mo. Cloth, \$3.50.

These days the education of the nurse is carried to a point past perfection in many cases, as the course is become so formidable and prolonged that few are led to follow the career. Though the art of nursing could seemingly be safely trusted to devoted, mature and physically capable young women of sufficient mental equipment to appreciate and follow "the doctor's orders," there is an elaborate system grown up which results in a class of medical and surgical assistants whose scientific knowledge so closely parallels that of the average physician that questions of authority and skill sometime arise and real help in the care and treatment of the sick fails.

The book before us is an excellent study of those phases of diseases and the nurse's part in the treatment of them which particularly belong to her side of the case. A good text for didactic instruction as well as for the young woman who desires to know the essential in her schooling.

W. S. H.

TUBERCULOSIS AND HOW TO COMBAT IT.

TUBERCULOSIS AND HOW TO COMBAT IT; A BOOK FOR THE PATIENT. By Francis M. Pottenger, A. M., M. D., F. A. C. P. St. Louis, C. V. Mosby Company 1921. 273 pages. 12mo. Cloth \$2.00.

This book is written for the lay public. Its style is therefore simple and direct with an avoidance of all strictly technical terms and discussions. It is an educator and as such could not be improved upon at the present time. Would that some philanthropic agency could place a copy of this work in every home in the country! How much misinformation could then be cleared away and how much constructive work initiated. Though produced for "the patient and his friends," it should make a strong appeal to the profession as well, so perfectly is it done. The physician will read it with much interest and with profit.

FOSTER MURRAY.

DISEASES OF THE NOSE AND THROAT.

A GUIDE TO DISEASES OF THE NOSE AND THROAT AND THEIR TREATMENT. By Charles A. Parker, F. R. C. S., Edin., and Lionel Colledge M. B., F. R. C. S. Second Edition. London Edward Arnold, New York, Longmans, Green & Co., 1921. 583 pages, 241 illustrations. 8vo. Cloth, \$8.50.

In their second edition of this work on the Nose and Throat, the authors have given to the student and the Laryngologist a valuable addition to his library.

The book has been revised and brought up-to-date, and there are some features which are noteworthy. On the other hand one is impressed with the fact that some of the lessons taught the Nose and Throat men of the World War are not even touched upon. Particularly is this so of the Bacteriology of the tonsil and Rhinoplasty. There are numerous helpful illustrations, yet insufficient for a text book of this type. There should be more illustrations of conditions, and more modern instruments might be shown in a few instances.

The relation of conditions of the Upper Respiratory Tract to general medicine and complications occurring in the course of infectious fevers, are given a large space, an innovation which many text books of this kind would do well to adopt. The chapters on Tuberculosis and Syphilis are a feature.

Though there are a few subjects which might be treated more at length, on the whole this work covers the subject of Rhinolaryngology very well. The surgery of this field should be given more space than it has received.

Post-graduate students for whom this book was originally intended should find it of interest and value.

MERVIN C. MYERSON.

OEDEMA AND NEPHRITIS.

OEDEMA AND NEPHRITIS. A Critical, Experimental and Clinical Study of the Physiology and Pathology of Water Absorption in the Living Organism. By Martin H. Fischer, M. D. Third and enlarged edition. New York, John Wiley & Sons, Inc., 1921. 922 pages illustrated. 8vo. Cloth \$10.00.

The third edition of "Oedema and Nephritis" by Professor Martin Fischer is an amplification of the previous editions. A number of additions have been made to the text, as specified in the preface. Greater stress has been placed on the role of infection in nephritis.

The appendix consists of a revised article on focal infection by Frank Billings, and an article on the classification and treatment of nephritis. The text is presented in an interesting way; the book is well worth reading.

ORTHOPAEDIE DES PRAKTISCHEN ARZTES.

ORTHOPAEDIE DES PRAKTISCHEN ARTZES.
Von Prof. Dr. August Blencke. Berlin, Julius Springer, 1921. 289 pages with 101 illustrations. 8vo. Cloth, 36 Marks.

This small book by Blencke contributes to the medical literature something that is lacking in our own language, a complete and concise volume on Practical Orthopaedics covering the entire bloodless field.

He lays particular stress on the more common forms of deformities and diseases that affect the arthrosteopedic system and those that are most frequently seen by the general practitioner. Dwells a good deal upon diagnosis, prophylaxis and treatment and only touches upon the pathology and etiology in a way so that early recognition of these diseases or deformities is made possible.

The reviewer is happy to note the author's advocacy of the more modern trend in the use of early active motion and of the various means employed for the early establishment of function. The author considers these deformities and diseases not merely in the sense of being satisfied with an ankylosis or fixation for the relief of pain but considers the functional element as the most important end result in the various pathological conditions. Having a wide experience with the results of war injuries, he advocates the use of mechanotherapy, electrotherapy and hydrotherapy as valuable aids and as important members of the armamentarium of the orthopedist as plaster and braces.

The thoughts and suggestions are mostly a resumé of recent observations and investigations by other writers modified by the author's personal experiences. His general outline of diseases and deformities in the beginning of the work covers but few pages as compared to other volumes on the same subject, but is made complete by well expressed sentences and original illustrations. His treatment of special deformities are concise and to the point and also made clearer by numerous drawings and photographs.

For a little volume, he devotes quite a great deal of space to the discussion of the various foot deformities especially flat foot. In brief he states that 95% of all foot pains are caused by flat feet. He cites as the most important causative factors: 1. Faulty posture in childhood. 2. Increase of bodily weight. That the vague pains in the lower extremities of children and young adults, commonly termed by the general medical profession as rheumatism or "growing pains" are early manifestations of this condition. That the beginning of a flat foot is in form of a traumatic myositis and tenosynovitis of the leg muscles. That this inflammatory condition later extends to the tendinous insertions of these muscles into the os calcis, astragalus and navicularis bones. The final manifestation being a traumatic arthritis of these tarsal bones in their articulation. The arthritides ending up in an ankylosis of the astragulo navicular joint causing the

rigid foot. As it is a treatise for the general practitioner he devotes quite some space to the prophylaxis of flat feet. Going thoroughly into detail as to foot wear, supportive measures and exercises. The treatment of this common condition is briefly discussed in accordance with its stage of involvement.

This book can be classified as a very valuable compendium of up to date orthopedics.

B. KOVEN.

ROENTGENTHERAPEUTISCHES HILFSBUCH.

ROENTGENTHERAPEUTISCHES HILFSBUCH
für die Spezialisten der übrigen Fächer und die praktischen Aerzte. Von Dr. Robert Lenk. Berlin, Julius Springer, 1921. 58 pages. 8vo. Paper, 8 Marks.

This is a reference book on X-Ray Therapy for general practitioners and for those devoted to other specialties. Its purpose is twofold:

1. To acquaint the physician with the pathological conditions to which X-Ray is applicable, the results that may be expected, and of what the general plan of such treatment consists.

2. By means of the above to extend the useful application of radiation to a greater field, to conditions other than carcinoma, and to those in which it is not a measure of first choice but of greatest value when other procedures are contraindicated.

Since this book is not intended for the X-Ray specialist it does not burden the reader with details of technique, nor with lengthy descriptions, discussions and statistics.

In its first part consisting of ten pages is given general information under several headings. A feature of this booklet is that in its second part all pathological conditions are arranged in alphabetical order, making it possible for the reader to find his particular subject readily. A large number of diseases are enumerated to which radiation is not commonly applied, e. g. angina pectoris, cholecystitis, arthritis deformans, pulmonary tuberculosis, etc.

Under the caption of each disease the information is arranged by heading as to (a) efficacy of radiation, (b) prognosis, (c) concomitant and resulting signs, (d) adjuvant treatment, (e) contra-indications, (f) formula indicating management as to number of treatments, duration of intervals filtration and dosage.

M. B. RADDING.

GRUNDRISS DER GESAMTEN CHIRURGIE.

GRUNDRISS DER GESAMTEN CHIRURGIE.
Von Dr. Erich Sonntag. Berlin, Julius Springer, 1921. 810 pages. 12 mo. Cloth 38 Marks.

The object of this work is to present the entire subject of Surgery in the form of a pocket compend for the use of students, instructors and general practitioners.

For its size it covers the entire subject in a thorough, concise manner. The chapters on fractures and dislocations, asepsis, and anesthesia are exceptionally well written for a rapid resumé.

The book ought to be particularly helpful to students as a preparation for examinations.

GEORGE H. REICHERS.

SWISS WATERING PLACES.

SWISS WATERING PLACES. (New York, Official Information Bureau of Switzerland, 1921). 86 pages illustrated. 8vo. Paper.

This booklet of 86 pages is a useful directory of Swiss hydriatic activities. The rich treasury of health springs in Switzerland has been famous since the time of Cæsar's conquest of the Helvetian Celts in 58 B. C. The therapeutic efficacy of the mineral baths and drinking waters is supplemented in certain cases by altitude, the direct action of the sun's rays, and perhaps by the radioactivity of the waters. In conjunction with these advantages there has been an advanced development of all kinds of physical therapeutics.

The booklet contains 12 colored charts and 9 plates. Copies will be sent gratuitously to any physicians interested in these watering places by the Official Information Bureau of Switzerland, 241 Fifth Avenue, New York.

It is well to bear in mind, however, that the morbid conditions for which these waters are recommended respond satisfactorily to treatment at such spas as Saratoga—when mineral hydriatry is indicated. Heart cases, in general, ought to do better at Saratoga under carbonic-acid-gas balneology than in the Swiss Alps, by reason of the difference in altitude.

A. C. JACOBSON.

THE INTERNATIONAL JOURNAL OF GASTRO-ENTEROLOGY.

A. L. Soresi, M. D., Editor, 220 West 59th Street, N. Y. \$6.00 a yr.

The first number of this new enterprise in medical journalism appears in July. It is a handsomely printed, profusely illustrated magazine of 120 pages printed on a yellow-tinted paper in large type that is very restful to the eye, and makes reading easy.

The scope of the magazine plans to cover the entire field of gastro-enterology, and its international character is shown by the presence of original communications from France and Italy, as well as from the United States. These are medical as well as surgical, and comprise the reports of operative technique, the anatomy and physiology of the small intestine, microscopic anatomy of the stomach, and experimental medicine. Dr. Soresi has attempted a new method whereby he presents commentaries on each article by men to whom they have been submitted in advance of publication. The criticisms are made without knowledge of the author's identity, and therefore carry a definite value as criticisms.

Dr. Soresi is to be congratulated on the first number of his Journal which deserves, and doubtless will establish for itself a definite place among medical periodicals.

BOOKS RECEIVED.

Books received for review are acknowledged promptly in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases review notices will be promptly published shortly after acknowledgment of receipt has been made in this column.

THE SURGICAL CLINICS OF NORTH AMERICA, Vol. 1, No. 3, June, 1921. Boston Number. 345 pages, with 159 illustrations. Published Bi-Monthly (Six numbers a year) by W. B. Saunders Company, Phila. & London. Paper, \$12.00 net; Cloth, \$16.00 net.

ESSAYS ON SURGICAL SUBJECTS. By Sir Berkeley Moynihan, K. C. M. G., C. B. Phila. & London, W. B. Saunders Co., 1921. 253 pages, illustrated. 8vo. Cloth, \$5.00.

THE PRACTICAL MEDICINE SERIES. Comprising Eight Volumes on the Year's Progress in Medicine and Surgery. Under the General Editorial Charge of Charles L. Mix, A. M., M. D. Series 1920, Vol. 5, Gynecology Edited by E. C. Dudley, A. M., M. D., LL.D., Obstetrics Edited by Joseph B. DeLee, A. M., M. D.; Vol. 6, Pharmacology and Therapeutics Edited by Bernard Fantus, M. S., M. D., Preventive Medicine, Edited by Wm. A. Evans M. D., D. P. H.; Vol. 7, Skin and Venereal Diseases Edited by Oliver S. Ormsby, M. D., and James H. Mitchell, M. D.; Vol. 8, Nervous and Mental Diseases Edited by Peter Bassoe M. D. Chicago, The Year Book Publishers. Price of Series of eight volumes, \$12.00.

WARFARE IN THE HUMAN BODY. Essays on Method, Malignity, Repair and Allied Subjects. By Morley Roberts. New York, E. P. Dutton Company 1921. 286 pages. 8 vo. Cloth, \$7.00.

TRATTATO DI IMMUNOLOGIA. By Eugenio Centanni, Professor di Patologia Generale nella R. Università di Modena. Milano, Societa Editrice Libreria 1921. 318 pages, illustrated. 8vo. Paper, price Lira 25.

LONG ISLAND MEDICAL JOURNAL

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Brain Abscess Versus Lethargic Encephalitis

An Illustrative Case

HENRY G. WEBSTER, M. D., F. A. C. P.

Brooklyn, New York

H. J., 25, unmarried, entered the Methodist Episcopal Hospital on May 4, 1920 complaining of headache, pain in the back of the neck and spasms. There was nothing in her family history, occupation (a clerk) or habits to attract attention. She had had measles and scarlet fever in early childhood and scarlet fever again (?) at ten years. She had tonsillitis yearly until a tonsillectomy in July, 1919. Three weeks later she had a chill, then fever and then a cough developed. Her physician told her she had a lung abscess and began giving hypodermic injections of a vaccine which was continued until January 1920, when, according to the history, she developed whooping cough which lasted some time, not definitely stated. A note in the history states that a final dose of vaccine was given on February 19, 1920. Whether this was for the lung abscess or for the pertussis is not clear. The cough never completely disappeared but persisted in paroxysmal attacks, at the end of each of which a small amount of green mucopus was expectorated.

Throughout this period and up to the onset of the present symptoms, she has been constipated, her appetite has been poor and her menstrual periods somewhat irregular, the last one having been five weeks ago. Her physician gave her some form of emenagogue which nauseated her.

Present illness:—Two weeks ago she noticed a weakness in the left leg below the knee that gradually extended upward until the entire left side became involved. After a few days she experienced twitching in the left leg which came on every two or three days in attacks lasting from ten to fifteen minutes. During the last few days the twitching has been more extensive, involving the muscles of the entire left side. There has been partial unconsciousness during the last two attacks. She has felt weak and exhausted after each attack,

but at no time has she had any fever. On Saturday, May 1, 1920, severe occipital headache with pain in the neck set in. Since Sunday, May 2, it has been continuous, with very slight remissions. She has been somnolent, but the pain prevents her sleeping. She has not been nauseated, nor has she vomited, except after taking the emenagogue pills.

When examined upon admission to the ward there was noted:—

1. A drowsy condition from which she was readily aroused, when she complained bitterly of pain in the head.

2. Weakness, but not definite paralysis of the entire left side of the trunk and limbs, but not the face.

3. Fetid odor to the breath.

Detailed examination:—Patient appears moderately anemic. The blood count taken that day showed 4,000,000 erythrocytes, Hb. 70%, Color index, .87, Leucocytes 17,800 with 89% polymorphonuclears. Urine negative.

There is little, if any, stiffness of the neck. *There are no intra nor extraocular abnormalities.* Tongue coated white. Tonsils extirpated. No pyorrhoea. Teeth in fair condition.

Heart. Pulse slow, 48, rather full and soft, a trifle irregular. Blood pressure, taken the next day, 120-55. The heart extends 14 cm. to the left. Sounds are of good quality.

Breathing is very shallow, but regular, and the physical examination is not satisfactory, but no gross changes in the physical signs are apparent.

Abdomen, relaxed. Slightly tender over McBurney's point, in upper right quadrant and over both costovertebral angles.

Arms. The left is distinctly weak, but reflexes are about equal in both.

Legs. Right normal in musculature and reflexes. Left weak, exaggerated knee jerk, diminished planter reflex, definite ankle clonus, no Kernig, no Babinski.

Spinal puncture done May 5. Clear, colorless fluid under considerable pressure. About twenty-five cc. withdrawn. Cell count, one. No globulin, copper sulphate reduced.

Blood was withdrawn for Wassermann and culture. Wassermann was not reported and there was no growth after six days.

The case was discussed and a possible brain abscess considered. During the following night she coughed violently in paroxysms, expectorating foul mucopus. A lung abscess was recognized and, to promote drainage, she was placed in the Clark posture.

The irregular reflexes, partial paralysis, head pain, nuchal pain, somnolence and low temperature—99.4 was the highest recorded and she was often subnormal—with low blood pressure, without eye symptoms and with clear spinal fluid under tension, taken with the pulmonary symptoms and bradycardia left an element of doubt whether these were due to a meningeal infection, a brain tumor, or a brain abscess. The picture changed on the sixth of May when ptosis of the left eyelid was noticed with flattening of the left upper part of the face, jerky action of the recti muscles and a tendency to vertical nystagmus.

Dr. F. C. Eastman examined her on May seventh and reported as follows: "The absence of choked disc, negative fluid findings, the patient's clear mentality in contrast with her marked drowsiness and apathy, the heavy lids, paresis of the left external rectus, and hemi-

bacterial examination." No other pathology bearing directly on the fatal outcome was noted.

There are some interesting speculations suggested by this rather unusual history. The natural inference is to regard the sequence of tonsillectomy, lung abscess and brain abscess as evident; but without complete bacteriological proof this must remain inference and inference only. It is of interest, however, to compare this case with the analysis of a series of one hundred cases of suppuration and gangrene of the lung reported by H. Wessler (J. A. M. A., lxxiii, no. 26, p. 1918). Twenty-one of these followed tonsillectomies. The symptoms came on two weeks after operation. The postoperative abscesses appeared twice as often in the upper lobe while the pneumonic cases attacked the lower lobe in the same proportion. In the present case the lung abscess appeared in the left upper lobe about two weeks after tonsillectomy. I must dissent from the diagnosis of whooping cough made during the latter part of this young woman's illness. Paroxysmal attacks such as she had during her brief hospital residence might be mistaken for pertussis, but the condition in the lung was sufficient to cause, and does cause, spasmodic cough. There was a marked similarity between the gross appearance and odor of the lung and cerebral abscesses which points to an identical infecting agent and the situation of the brain abscess indicates a hematogenous origin. It is regrettable that Dr. Smith's cultural studies were inconclusive. The sputum showed a great preponderance of staphylococci. The other flora is unknown. As to the mistaken diagnosis of lethargic encephalitis, let it be said that the prevalence of the disease at that time was enough to make it the first thought. A comparison of the cardinal symptoms of brain abscess and lethargic encephalitis may be of service. It must be borne in mind that both conditions are brain inflammations and vary with the extent and site of involvement.

Jelliffe and White (Diseases of the Nervous System, 1915) summarize the symptoms of brain abscess as follows: "*Primary stage.* General signs predominate. There is normally an acute rise of temperature which is often slight and disappears after a few days. Pulse is *slow*. *Headache* rarely absent. There may be vomiting. A focus of infection is regularly antecedent. There may be delirium and stupor. Leucocytosis is usually present. *Stage of remission.* Headache and fever lessen and patient becomes tired and somnolent. Pulse slow. Cerebral percussion may show tenderness. Polymorphonuclear leucocytosis frequently present. This period may last weeks or even months. Choked disc is not infrequent, especially if the condition has been present over a week. It is usually present on the same side as the abscess. The pupils are often unequal, the larger on the side of the abscess; but contracted pupils may be noted in severe cases, toward the end. *Stage of advance.* After from one to three months advancing cerebral pressure symptoms appear—delirium, convulsions, generalized meningitis, death. In purulent metastatic cases the development takes from eight to fourteen days and the stages are not sharply defined. Headache, fever, vomiting, vertigo, confused delirium are prodromal; and epilepsy, or cortical monoplegia, or speech, motor or sensory defects secondary."

I quote the following paragraphs from a paper on Encephalitis Lethargica Epidemica by John F. W. Meagher published in the Long Island Medical Journal in September, 1920, for comparison.

"The onset is usually acute. It may be slow, however. One

writer with considerable experience was exceptional in saying that in most of his cases the onset was subacute If acute, you may note indifferent prodromata, as in other acute infectious conditions. If of slow development, the patient may at first complain only of muscular asthenia; of being tired, or of some headache. Or again, instead of general symptoms, focal signs may be the first to attract attention, as facial paralysis, fifth nerve pain The onset may be very severe.

Symptoms: Beside the general symptoms of infection, remembering the predilection of the virus for the neighborhood of the medulla, pons, mid brain and basal ganglia, we know what signs to look for

. . . . The general symptoms are numerous. There may be drowsiness, apathy, or lethargy, or depression. Or an opposite set of symptoms may be noticed—irritability, restlessness, euphoria and delirium; headache, tachycardia, vertigo, asthenia, tremors or twitchings may exist alone, or what is more usual, be associated with focal symptoms; e. g., eye muscle paralysis, facial paralysis, etc.; blurred vision, tinnitus, dysarthria, dysphagia. In one of my cases there were severe spasms of the left sternocleido and trapezius muscles. Headache and mental symptoms have been very common. The fever is usually persistent, and usually 100-102 F. For a few days it may be as high as 104-105 F. Ophthalmoplegia is extremely common, so that ptosis, strabismus, and complaint of double vision is very frequent. Lesions of the medulla, pons, cortex, cerebellar tract, cord, etc., will result in their characteristic focal signs

. . . . Paralysis of the extremities, as monoplegia, hemiplegia, etc., is very rare compared to spasticity. Involvement of the extrapyramidal nervous system is very common."

To summarize, then, the history of a longstanding abscess of the lung, the persistent headache, the low temperature, slow pulse and clear spinal fluid under tension should have been sufficient to show that the drowsiness and palsies were focal, from abscess, and not from the unknown, and consequently alluring, lethargic encephalitis, I am indebted to Dr. E. A. Sunde, then house physician at the Methodist Hospital, for his excellent history and notes on the case.

The Non-Operative Treatment of Retroversion of the Uterus

WILLIAM H. CARY, M. D., F. A. C. S.

Brooklyn, New York

I AM submitting the outline of an informal lantern slide discussion of "Non-operative Treatment of Retroversion of the Uterus" given before the Brooklyn Gynecological Society. Only the conclusions of this study will be tendered. While much profitable comment might possibly be made relative to the subject, the accompanying charts classifying the different types of retroversion subject to non-operative care would seem to be sufficiently clear to present the views of the writer. As pessary care constitutes such a large part of the non-operative treatment of uterine displacements, the salient features of pessary care are also outlined.

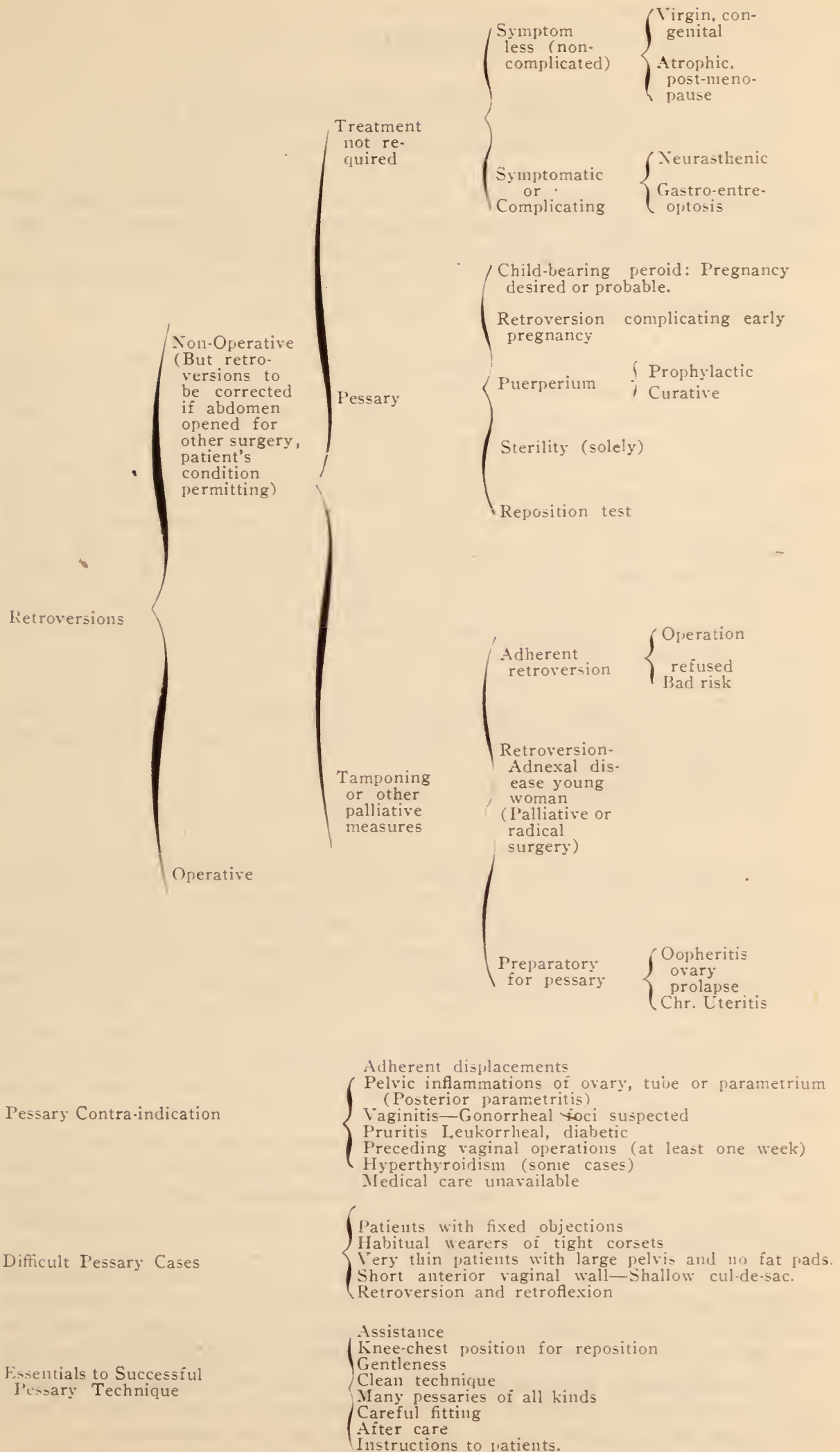
SUMMARY

It has been said, and I think with reason, that a gynecologist's qualification could best be measured by his skill in the management of retroversion of the uterus.

No gynecological disorder requires keener study and analysis to determine its true relation to pelvis pathology and general symptomatology. Because patients do not receive such study the treatment of retroversion has been humiliating in its inefficiency. Because cases are not properly selected for operative and non-operative treatment—by far the larger number belonging to the latter group—and because the proper operation is not chosen for the different types of posterior displacements, the results attained in the treatment of this disorder are often disappointing.

Probably no gynecological disorder has had a greater number of methods devised for its cure. In visiting the larger clinics it is usual to hear one method lauded because the operator has encountered such a large percentage of failures from the procedure of others only to find on the following day in another clinic the method of yesterday's clinic criticized again because of the large percentage of recurrences. One is convinced that if truthful statistics could be tabulated giving the percentage of relapses after operations for retroversion, especially when pregnancy has occurred subsequent to operation, the figure would be appalling.

It would seem that no gynecological operation is so often needlessly done and Mr. President, I think the time is at hand when representative members of societies such as this should stand upon their feet and condemn operations done solely for the correction of uncomplicated retroversion of the uterus.



Radium

CHESTER TILTON STONE, M. D.

Brooklyn, New York

REALIZING that most of you are too busy to have gone into Radium therapy or physics at any length, I will endeavor in this paper to give you a brief sketch of the principal points.

I trust that those of you who know, will bear with me for refreshing your memories with facts which your neighbor may not know.

Becquerel, a French physicist in 1896, while investigating the effects of uranyl potassium sulphate upon photographic plates enclosed in light proof covers, noticed that a plate on which this salt had rested in a dark drawer showed a very dark spot when it was developed.

After finding this property was peculiar to uranium he assigned Mme. Curie, one of his workers, the task of further isolating the radio active substance. The history of her procedure and progress is interesting. Her final results were the Radium series. She with other early workers noticed that Ra burned the skin as did the X-Ray, and so it entered the therapeutic world.

Radium is a metallic element belonging to the Strontium Barium group. It forms salts with mineral-acids and has an atomic weight of 226.4. The three most commonly employed salts are RaSO_4 containing 70.2% Ra element; $\text{RaB}_2 \cdot 2\text{H}_2\text{O}$ containing 53.6% Ra element; RaCl_2 containing 76.1% Ra element. There is also RaCO_3 a salt not at present considered.

In 1mg. Ra element there is 1.42mg. of SO_4

1mg 1.87 BR

1 1.31 Cl

In one hour one gm. Radium evolves sufficient heat to warm 134gm. of water through 1 C, i. e. 134 calories.

There are three rays given off by Radium; the (a) (b) & (s). The (a) rays, which technically are not rays at all but + charged atoms of Helium, produce by far the greatest ionizing effects in gases. They are, however, completely absorbed by passing through a few cm. of air. The length of their pathway (i. e. scintillation effect) is its range. In air the range of the Ra (a) rays is 3 cm. These have the greatest heat production on account of their enormous energy thrown off when suddenly stopped.

Of the 134 calories of 1gm. of Ra. the (a) rays furnish 123.6C. Their effect on the skin is confined to a thin surface layer because of their ready absorption. According to the exposure and the preparation used the effect is from a faint red to necrosis. Therapeutically the (a) rays are not considered.

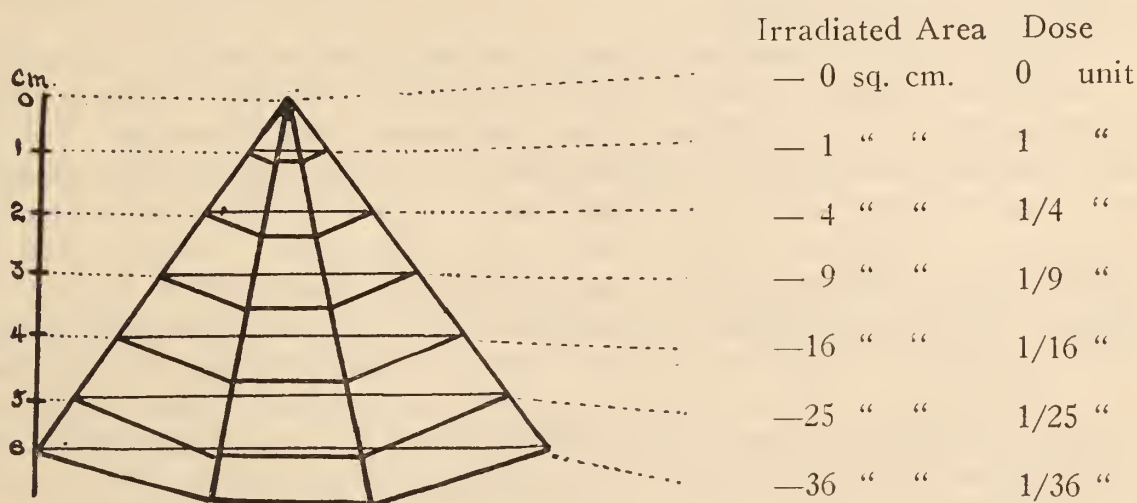
The (B) rays of Radium show different degrees of penetration as they are split into soft, medium and hard rays. They are one hundred times as penetrating as the (A) rays. These greatly resemble the cathode rays of the X-ray. They furnish 4.3 calories of the 134.

Ra. (B) rays are one-half absorbed in 1mm. of soft tissue and nearly completely absorbed by 8mm. aluminum or 2mm. lead. Their absorption is in proportion to the density of the substance.

Numerous chemical as well as physical changes may be produced

by these (B) rays. Due to their superficial, but intense action these rays are useful in skin diseases. To be effective, however, they must be practically unscreened.

The S rays are 100 times more penetrating than the (B) rays. They even exceed that penetration produced by the X-ray in a hard vacuum tube. They are half absorbed passing through 115 meters of air and 40% absorbed by 1cm. of lead. On passing through 10 cm. of lead there is still 0.6% unabsorbed. The S rays from 30mg. of Ra. can be observed after passing through one foot of iron. They are one-half absorbed in 6" to 8" of soft tissue but fall off greatly due to divergence.



Radium is standardized by its S ray activity. These S rays are therapeutically the most used and useful. Their action is inversely as the square of the distance. S rays reach 100 meters and still affect the electroscope. At three meters they will penetrate a man and cause fluorescence beyond him.

Radium also gives off a radio active gas called emanation. If heated, Radium salts give it off quite freely. The gas is chemically inert. Its period is 3.85 days. That of Radium is 1700 years. By period of half life is meant that interval in which half of any given quantity of a single sort of Radio active atoms disintegrate. The atomic weight of emanation is 223. (Describe apparatus and technique).

Mention should be made of another class of rays which are created when a filter of lead is used. They are called secondary rays. These are very irritating, but can be screened by rubber.

A very remarkable property of Radium is its ability to cause bodies exposed to it to become temporarily radio-active. The effect is produced by a deposit of radio active matter on inactive bodies (active deposit). Its period is 26.8 minutes.

Radio activity is the power of sending out rays, which penetrate through all forms of matter affecting photographic plates in darkness by electrified bodies.

Radium exists in Pitchblende, uranite, chalolite, thoranite, and carnotite ore. Its process of extraction and refinement while tedious and painstaking is extremely interesting.

In studying the Ra series it is now practically concluded that in all probability the end product of this series is lead. There are five Ra products which in disintegrating give off (a) particles i. e. helium atoms, viz Ra; Ra emanation, Ra A, RaC and Ra F. The

atomic weight of Ra. is 226.4 and that of helium is 4. It may be supposed that the atom produced when Ra. F disintegrates should have atomic weight 226.4 less 5×4 or 206.4 the atomic weight of lead.

It has been said that Radium is to be considered a force and not a therapeutic measure. This expression is certainly suggestive. Although Radium has been employed in treating diseases for over fifteen years, only in the last three or four years has it been considered seriously by the profession. Probably the main reasons for this have been that early preparations were disappointing in that they were not standardized and in some cases were not Radium at all. Now we are able to procure the pure product under the seal of the Bureau of Standards at Washington.

Many factors enter into the problem of the successful use of Ra. In addition to the knowledge of the character of the rays, the arrangement of the Ra, the distance from the tumor, the technique of filtration, the duration time of the exposures, the interval between seances, we must consider the amount necessary to use, its form and shape, as well as the location of the tumor and the proper position for the application: whether biopsy is advisable is another matter for consideration. The susceptibility of the involved tissue must be ascertained. The embryologic and histologic origin of the growth, its pathology, the resistance of the surrounding and pathological tissues, the lymphatics and other chemical, physiological and biological factors. These must all be fully understood before determining the therapeutic value of this element.

During the course of treatment the actual size of the tumor should be compared with previous measurements, the visible effects of Ra. on the tissues observed, as erythema, burns, etc., and daily blood examination should be made.

Radium given internally has a startling action. It is employed by inhalation of the emanation, drinking activated waters, or it may be also employed by intravenous injections.

The physiological action of Radium internally is miraculous. In an article Dr. Moriarta of Saratoga Springs says: It often increases the red blood count one-fourth of a million in 48 hours. The hemoglobin is also quickly raised. All cell life is stimulated, particularly the enzymes. Metabolism is thereby aided and improved. It increases elimination of CO_2 , urea and uric acid. The viscosity of the blood is diminished and the quantity of uric acid increased. It stimulates and increases the appetite and aids digestion by activating digestive ferments. It dilates blood vessels through excitation of the vasomotor nerves. Its action in anemia is marvelous. It is said to relieve pain and the local manifestations of gout as well as the pain of neuritis. It lowers blood pressure.

Colwell and Russ found that microscopic examination of tissues exposed to hard beta and gamma rays reveals the followings facts: soon after exposure, a serous infiltration, an enlargement of the cell nucleus and cell body, and a swelling of the endothelial cells lining the capillaries are seen. The lumen of the latter decreases in size. Within 7 to 8 days a degeneration of the cell nucleus is evidenced by a cessation of mitosis, a pyknosis, cytolysis and chromatism while the protoplasm evidences vacuolation and granulation. A reactive inflammatory process also appears characterized by a lymphocyte and leukocyte infiltration and the appearance of numerous young fibroblasts. The contact tumor masses seem to break up in small particles

separated from each other by young connective tissue. The cell debris is rapidly cleared away by phagocytosis. The fibro blasts mature into connective tissue. The tumor seems to have vanished. This is not the case, however, for a more careful examination, especially in regions more distant from the Ra, the epithelial cells are still seen, sometimes isolated, at other times in small nests that exhibit all stages of degeneration. Whether they are dormant or absolutely harmless or dead cannot be stated. If radiation is not continued they may again assume renewed activity leading to a recurrence.

A comprehensive study of malignancy is essential to either a surgeon or radio therapist before he treats malignancy. He should know the origin of the growth, its type, duration and mode of extension as well as the probable cause of death in hopeless cases in order to give the patient the greatest amount of palliation.

It is a well known fact that cutting out the center of a malignant growth is poor, surgery, the same as radio therapy is useless in the treatment of a local lesion if the metastacised lymphatic chains are omitted.

After having read everything on Radium that I can obtain and having seen and used it quite extensively, I would be foolish to claim it as a panacea. It must be linked hand in hand with surgery and the Roentgen ray.

There has been such a marked advance in the technique of X-Ray therapy, that soon the X-Ray bids fair to attain a place of equal footing with Radium. In the future they will be used either together or alternately on cases.

Neither is it intended to convey the impression that treatment by X-Ray or Ra should displace the operator in all cases; far from it. The ideal method is to employ radiation before and again after operation. In no case, however advanced, should trial by X-Ray or Ra be refused.

The early recurrence of a neoplasm after radiation does not necessarily prove that the treatment is of no value. It merely demonstrates that we have not given a dose sufficient to check the particular malignant process in activity in the case. 'Tis true that some few cases do not respond to radiation. The reason is doubtless biologic.

The following conclusions may be drawn in the value of X-Ray and Ra in treatment of malignancy:

1. That these agents are most valuable aids in treatment of these conditions.
2. X-Ray and Ra may be used separately or combined alternately in the same case.
3. Inoperable areas may often be rendered operable by radiation and hopeless cases rendered great palliation.
4. Other methods of treatment must not be neglected when radiations are being used. Arrested growths or those not yielding to treatment must be removed.

Drugs which are known to aid radiation should be employed such as Thyroid extract, iron, arsenic, salvarsan, etc.

In favoring Ra over X-Ray I would say that Ra rays are much more rapid and always uniform. Fungating tumors seem to melt like snow in the sunshine when Ra is employed. There is no danger of electrical shock to the patient, less danger to the operator, less danger of burns. If too much reaction is obtained it heals readily as compared

with Roentgen rays. But always remember that the man who is using Ra. alone is making the same big mistake that the man is who is ignoring Ra. and using Roentgen rays exclusively.

Ra. exerts a destructive influence on the malignant mass in a manner more humane than any other known agent after the knife. It controls pain, hemorrhage and odor and frequently gives a hope to the hopeless that should not be withheld. It is a valuable adjunct to surgery. In my experience Ra has been so uniformly promising that I hesitate to report cases lest I be accused of being over enthusiastic. It is a subject which still requires deep investigation and study although the day is rapidly passing where we look upon it as an agent of mystery. The problem is to learn how to properly bridle its action to make it even more effective.

Read before the Ridgewood Medical Society, April 20, 1921.

The Treatment of Mild and Convalescent Tuberculous Patients with Limited Means

EDGAR THOMSON SHIELDS

Medical Field Secretary, National Tuberculosis Association

New York

RELIABLE evidence at hand convinces us that there are at present no less than 1,000,000 active cases of tuberculosis in the United States. Less than one-fifth of these can be cared for in the tuberculosis institutions of our country, even when their capacity is stretched to the utmost by allowing a yearly turnover of three patients for each bed. The remaining four-fifths if treated at all, will have to depend upon home treatment given in most cases by the family doctor, usually a general practitioner. Even the fortunate one-fifth who receive institutional care, at some time during the course of the disease or their convalescence, become home cases needing home treatment.

Confronted by so urgent a need covering so extensive a field, we should define very clearly what we are driving at in home treatment. What is our goal? What the objective of home treatment? Our answer is, *the economic rehabilitation of the tuberculous individual*. It may mean much more than this, it cannot mean less, if we are fair to our patients and honest with ourselves.

Let us here state some fundamental principles included in a well-rounded program for the treatment of the tuberculous:—

1. Our work as physicians is by no means finished when the arrest of the patient's disease has been fully established.
2. We are morally bound to help the patient back into the ranks of the producers, thus enabling him to make his individual contribution to the welfare of society.

3. Our responsibility does not end with the individual's economic rehabilitation but continues as long as supervision and advice are needed to guard him from preventable relapses.

Failure to grasp these fundamentals as principles of action in our treatment of the tuberculous, and our inability to fulfill these obligations to our patients, have created those two classes of unfortunates,—the indigent consumptive and the migratory consumptive; the former draining the resources of the state, the latter menacing the health of the community.

The arrestment of the patient's disease is largely a medical problem. The doctor outlines the patient's health program and the nurse sees that it is carried out.

Training or re-training of patients along physical and industrial lines is generally most acceptably handled by a skilled occupational therapist, always, however, under the direct supervision and control of a doctor. Tragic experiences have proved that permanent success can be assured only when exercises and work are carried out under the direct oversight and guidance of a physician.

Guarding the worker from preventable relapses after he has been re-established in industry is also the physician's task. Here, however, the nurse and the occupational therapist can do most of the detail "follow-up" work in the "after-care" program. Frequent reports of the patient's progress should be submitted to the physician, who passes judgment upon any contemplated change in the patient's work, environment or habits, and advises accordingly.

A splendid service may be rendered during treatment or convalescence by a social service worker, for certain problems are often more easily solved, and needed help more quickly furnished through social service agencies than through other organizations.

Fortunate indeed is that physician who can call on all these various workers to help him carry out the home treatment program.

Doubly fortunate the man who finds one helper who combines natural ability, training and experience along all these lines of service.

In either case his work will simplify itself into outlining and supervising the patient's schedule, and by his own enthusiasm and confidence he will inspire the patient cheerfully and faithfully to carry out the daily routine.

But more than likely our general practitioner has none of these reserve forces to fall back upon. Then he must rely solely upon his own resources and go ahead. The patient must be deeply impressed with the importance of absolute obedience to the doctor's instructions, while on the other hand, the doctor will be required to give a closer supervision to his patient than otherwise.

But the patient need not suffer because the doctor lacks sufficient helpers; in fact an added responsibility placed upon the patient himself may be of the greatest benefit in keeping up his morale. And the physician himself, by this more intimate personal supervision of his patient discovers a deeper interest and a keener enjoyment in watching the progress of the fight. He will even be surprised and delighted by seeing victory wrested from seeming defeat, even with the odds greatly in favor of the enemy.

Two most valuable allies in home treatment have not yet been mentioned. The mother, wife, sister or friend who looks after the patient day by day will generally prove to be the keystone in the whole

arch of treatment. Upon the quality and stability of this keystone will depend the fate of the whole structure, whether it will stand firm or whether it will collapse and fall.

The full cooperation of this home nurse must be secured and generally this is not difficult, and good team work in the home will sometimes accomplish the seemingly impossible.

Where through ignorance or willfulness on the part of the individual patient or his family, one cannot secure cooperation it is useless to carry out home treatment; the only alternative being to place the patient in an institution where strict discipline and good morale obtain.

In the August "Bulletin" of the National Tuberculosis Association, Dr. H. A. Pattison, Supervisor of the Medical Service of the Association, suggests and outlines a program for standardizing home treatment for the tuberculous. This plan is making a very strong appeal to many workers among the tuberculous and a number of organizations are eager to take up the standardized home treatment program as outlined in Doctor Pattison's article.

This plan calls for each patient to have at least three months schooling in a modern sanatorium. On their return to the home, prepared in their absence to meet the requirements of home treatment standards, they remain under the personal supervision of a carefully selected physician and his helpers for a period of at least four years. Good results should follow such a program properly carried out.

A second strong and helpful ally of the physician treating the tuberculous individual is the modern sanatorium, and wherever possible the patient should spend at least three months in such an institution. This is really in preparation for home treatment, for here the patient can learn much about the real nature and curability of his disease; can find out his own physical limitations; the value of rest, food and fresh air as builders of bodily resistance; the remedial value of special agents, such as sun-light, hydro-therapy, massage and graduated exercises. He learns how he can prevent infection of others, especially young children; the best methods of destroying his sputum; the effect of cheerfulness or worry upon the body; the folly of "chasing the cure"; the danger of taking patent medicines and alleged "cures"; the effect of excessive fatigue and of prolonged chilling in producing relapses. All these he learns and many more facts which help and inspire him in his fight for health.

Here also he forms good health habits; he sees that regularity in sleeping, eating and exercising promote strength of body and contentment of mind. He learns caution minus fearfulness. He learns discipline of body, mind and will, and the importance of strict obedience to the doctor's orders. He foregoes present indulgence for the sake of future health and usefulness. In a word he learns enough to give intelligent cooperation to those looking after his welfare, and in so doing he has gone a long way on the road to recovery.

In some instances he is taught to take his own temperature and pulse, and to keep a diary of the daily happenings. Such a training as this is most valuable, for when this well-trained patient returns to his home, the physician finds that supervision of such a one is an easy, enjoyable task.

One thing above all others is of vital importance. If we are to get permanent and happy results in the home treatment of tuberculosis the patient's interest in himself and in life must be kept alive. When

he comes to feel that he is not needed in the world, that his place has long since been filled, and that there is no work peculiarly his own left for him to do, then he has begun to lose faith in himself and his recovery. Until this faith and confidence is restored, and it is generally possible to accomplish this, all other treatments are practically useless and his case is well nigh hopeless.

The real practical value of a hobby has been proved many, many times. It is a fine, all-around tonic for the patient, especially for the one who is slumping mentally and morally, and losing hold of himself. It is wise to help the man find some interest outside of himself if he has no worth while objective to think about. Not a few patients have dated the beginning of their real convalescence from their first efforts in making a scrap-book filled with happy, helpful quotations.

Extracts from an article by Dr. Pattison, Medical Supervisor of the National Tuberculosis Association, published in 1919, are very enlightening regarding the scope and place of Occupational Therapy in the treatment of the tuberculous. He says: "Occupation of the mind is often the best form of rest, and occupation of the hands is the means by which the mind may best be occupied. It is the use of the large skeletal muscles which tends to break down the tuberculous man, but those muscles are of less value in securing mental occupation. Their use has little cultural value unless the work performed is unusually varied and constructive in character. It is the smaller muscles that have distinct value in stimulating interest, imagination and ambition. The hands trained to elicit harmony from the strings of harp or violin, that deftly weave a basket or shape the clay into artistic forms, that with square and compass made a constructive drawing, receive their impulses from an interested and developing mind. Curative work must be progressive and constructive."

The reading of well selected books is a splendid recreation and keeps up the general mental tonus. A number of physicians have written especially helpful books for patients, of which the following are good examples:—

Dr. Trudeau's *Autobiography*

Dr. Cabot's "What Men Live By"

Dr. Brown's "Rules for Recovery from Tuberculosis"

Dr. Minor's "Hints and Helps"

The National Tuberculosis Association will gladly furnish a packet of patient's literature and catalogue with prices of publications adapted to the use of physicians, nurses and patients, to any one who cares to make use of them.

Nature study has filled a large place in interesting patients sufficiently to make them forget their ills and their troubles. It can be carried on practically anywhere by anyone.

Any thing or any activity which keeps the mind alert without taxing the bodily strength may be found as a useful measure in helping these patients recover their health and usefulness. Again quoting Dr. Pattison, "Occupational Therapy is mental or physical activity definitely prescribed and guided for the specific purpose of contributing to and hastening recovery from the effects of disease or injury. Unless prescribed to promote recovery, the activity is not therapy and moreover unless wisely prescribed and properly guided it may contribute to death and not recovery. . . .

"Occupational Therapy may be divided into three parts, which are practically three stages in its remedial application:—

(1) Diversional therapy, in which simple amusements such as games and puzzles are used to occupy the fingers and divert the mind.

(2) Occupational or handicraft therapy, in which definite tasks are assigned, involving the doing of useful things with woods, beads, textiles, clay, metals, etc., for the purpose not only of occupying the mind, but of assisting in restoring lost or weakened function.

(3) Pre-vocational training, in which the prescribed remedial agents are employed for the distinct and studied purpose of leading to definite education and training for some industry, trade or profession.

"Fortunately the great majority of arrested cases of tuberculosis do not require training for a new trade, industry or profession, but can return to the old occupation if the required hygienic conditions are fulfilled.

"Very little has been done in the way of vocational guidance and placement for the graduates of our civilian sanatoria and, as has already been indicated, the need for counsel and follow-up service is very great indeed."

Recently Occupational Therapy has had a rapid and healthy growth. New methods have been developed and skilled workers have been trained in schools of occupational therapy, or by special courses given in hospitals and sanatoria. So genuine has been the interest in this new field of therapeutics, and so splendid the results, that many institutions now include as a necessary part of their therapeutic program the work of the occupational therapist.

In the final analysis we must all realize that the family is the real, basic unit to work with and for; that tuberculosis will continue to exist much as it does today until that time when we can make hygienic, social and economic conditions surrounding the family more nearly ideal; also that our individual is not permanently safe from relapses until family conditions for him are peaceful and helpful.

Our home treatment program for the individual is not exclusive but inclusive. It leads up to and intimately touches the family as well as the individual. Good thorough work for the individual is truly constructive work and will very materially aid in the future establishment of more ideal family conditions, accomplishing intellectual, social and industrial rehabilitation where these are necessary. It will also help much in bringing about a condition of social betterment for the whole community as well.

The work of the National Tuberculosis Association and its 1200 state and local branches is made possible by funds secured through the sale of tuberculosis Christmas seals.

The Fourteenth Annual Christmas Seal Sale will take place in December of this year, and the response of the public will determine the extent to which this work can be carried forward during 1922.

Results of Examination of 890 School Children

DAVID H. HALLOCK, A. M., M. D.

Medical Inspector of Schools.

and

FRANCES ARCHIBALD, R. N.

District Nurse.

Southampton, New York.

IN 1913 was first passed in New York State a law providing for the yearly medical inspection of all school children in the State. This law followed the lead taken by other states and some of the larger cities possessing independent Departments of Education. This inspection law in New York State provided that all school districts which neglected the medical inspection of its pupils might have its state allotment of funds for the year withheld by the Regents, but unfortunately this last provision was not enforced and for this reason it was only after a delay of several years that medical inspection of school children became at all a customary yearly occurrence. In 1916 in Suffolk County this law was fairly well complied with and each year has shown an increase in its effectiveness. The time is rapidly approaching when the penalty clause may be enforced in those districts which still continue to neglect the yearly medical inspection.

As Medical Inspector and District Nurse in District No. 6, Southampton, Suffolk Co., N. Y., it was the duty of the writers to inspect the school children in the schools of that district. This physical inspection covered the following points: (see Fig. 1.)

Height	Lymph Nodes	Ears (inc. Hearing)
Weight	Goitre	Heart
Nutrition	Nervous System	Lungs
Teeth	Speech	Orthopedic Cond.
Breathing	Eyes (inc. Vision)	Skin and Scalp
Tonsils		Miscellaneous

Of the 890 pupils examined 331 or 37.1% were found to be normal, which percentage is high when compared to similar figures from the statistics of draft boards or city schools. It was noticed that a higher percentage of normal pupils were found in the eighth grades and high school than in the lower grades. Pride in person together with sufficient opportunity to correct existing defects is a factor with older pupils. Examination of defectives gave the following results, 782 defects being found in the remaining 559 pupils:

Defective Nutrition	74	" Thyroid	1
" Teeth	332	" Eyes & Vision	78
" Breathing	22	" Ears & Hearing	25
" Tonsils	158	" Heart	7
" Lymph Nodes	2	" Lungs	4

Defective Speech	1	Miscellaneous defects encountered were:	
Orthopedic Defects	6	Apparent Anaemia	9
Skin and Scalp Defects	59	Urinary Incontinence	1
Miscellaneous Defects	13	Sublingual Cyst	1
Total	782	Congenital Syphilis	2

From among these 782 defects there were treated during the school year the following, which total 258 defects or 33.0% of all defects:

Nutrition	20	Ears	1
Teeth	118	Heart	7
Breathing	20	Lungs	4
Tonsils	26	Orthopedic	4
Lymph Nodes	2	Skin and Scalp	22
Thyroid	1		
Eyes	33	Total	258

In determining abnormal nutrition the height, weight and age were taken and the weight compared with the proper weight for that height and age as found in two tables compiled by the Division of School Hygiene, Bureau of Education of the Department of the Interior, at Washington, D. C. One table applies to boys, the other to girls. All children falling ten pounds or more below the correct weight were considered defective.

Through the assistance of the Hampton Chapter, Red Cross, a Nutrition Clinic was established by the District Nurse and twenty of the most poorly nourished children were furnished one quart of milk daily for two months and the effect upon their weight noted. Weights were taken weekly and at the end of the period the following results were noted:

Gained in weight, $\frac{1}{4}$ to $4\frac{1}{4}$ lbs.	17
No gain in weight	1
Loss in weight, $\frac{1}{2}$ to $1\frac{1}{4}$ lbs.....	2

(One of these last was an epileptic.)

As will be seen from the above figures the teeth were most often found defective. Dental caries and alveolar abscesses and sinuses were frequent and were found in the temporary teeth as well as in the permanent set. The worst alveolar sinus seen led to the root of a temporary molar. It was found that practically nothing was being done for caries in temporary teeth. The opinion that these teeth are not worth being properly cared for should be combatted.

When a pupil is found with defective nasal breathing, there are several possibilities: congenital malformations, hypertrophy of the turbinates, polypi, foreign bodies, new growths, but most often adenoids. This condition of adenoids, though the most frequent of the above causes, is placed last because it is most generally blamed for all nasal obstructions, especially in a routine examination, while the other less frequent causes are overlooked. A surgeon has no harder task than that of explaining to a parent why the removal of adenoids has not made nasal breathing perfect, when actually one of the rarer diseases was the cause.

Tonsillectomy is advised in all cases where one or more of the following conditions is present:

1. History of repeated attacks of acute tonsillitis.
2. Marked hypertrophy.
3. Gross disease of the tonsil.
4. Enlarged tonsillar nodes.
5. Heart lesions without other ascertainable cause.
6. Rheumatic Fever and Chorea Syndrome.

It is interesting to note that in this series of cases but one case of goitre was met with. This was of the puberty type in a female. This case refused to yield to Thyroid Extract, but improved under Sodium Iodide, Gm. 0.2 each day for ten school days each Spring and Fall, as recommended by Kimball.* It is interesting to compare the incidence of goitre in this locality with that among the school children of Chicago: here, all sorts—0.1%; Chicago 56.4%. Evidently Long Island is not a goitre locality.

In testing vision the ordinary test letters are used to give an indication as to whether further examination is needed. Those pupils with as well as without glasses are tested as it is often found that the glasses do not correct as well as they should. In these cases a complete ophthalmological examination is recommended.

Among the more serious defects is chronic cardio-valvular disease. Irritable heart and functional murmurs must be ruled out. In but one case of this series were the parents ignorant that the condition existed. The pupils knew from their subjective symptoms that something was wrong with their hearts. In examining the chest auscultation was done through not more than one thickness of cloth, over the heart and at the apices, and if the general appearance or special stigmata pointed to the chest, the chest was bared and thoroughly examined. Less than this as routine does not do justice to the pupils nor to the public.

Orthopedic conditions met with were all the results of the 1917-1918 epidemic of infantile paralysis and were seen regularly by a competent orthopedist. Improvement was at a standstill and those using braces were in a fair way to use them for the rest of their lives.

All sorts of skin diseases were met with from eczema to scabies. Cases of the latter were found which had been present in the family for years, having been partially treated. It was only after much persuasion that treatment was resumed. The greatest surprise of all was the decided prevalence of pediculosis capitis from the kindergarden to the high school. From its distribution it is our impression that this disease is spread in the school. Energetic treatment was at once instituted.

In conclusion we state that as a preventative against future disease medical inspection of school children holds an all-important place. It is urged that the school physician has a serious work on his hands, which should be thoroughly performed. It will not do for a physician to walk about the school room, give the pupils a clean bill of health and draw his check. The Board of Education, the teachers, even the pupils, and through them the parents, are getting to recognize thorough work. In the future the success of many a young physician will rest upon the impression he leaves in his work among the school children.

* Kimball, Rogoff & Marine Jr., A. M. A., V. 73, No. 25, P. 1873.

The University of the State of New York PUPIL'S HEALTH RECORD School Health Supervision

Part I

192

Teacher—Nurse

Informant

City or town

County

School District

Name of pupil

Birthplace

Date of birth

Sex

Name of father

Address

Age (or date of death)

Health

Name of mother

Address

Age (or date of death)

Health

History (Dates)

Small-pox

Vaccination

Tonsillitis

Typhoid

Chicken-pox

Diphtheria

Ger. measles

Hernia

Inf. Paralysis

Influenza

Measles

Mumps

Scarlet Fever

Whooping Cough

Tuberculosis (date) in self

In family

In asso.

History of Operations

Health record must follow pupil from room to room or school to school

GRADE OR CLASS	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
Date of Examination.....	19	19	19	19	19	19	19	19	19
1 Height.....									
2 Weight.....									
3 Nutrition.....									
4 Teeth.....									
5 Nasal breathing.....									
6 Tonsils.....									
7 Lymph glands.....									
8 Goitre.....									
9 Nervous system.....									
10 Speech.....									
11 Eyes { R.....									
L.....									
12 Ears { R.....									
L.....									
13 Heart.....									
14 Lungs.....									
15 Orthopedic conditions.....									
16 Skin or Scalp conditions.....									
17 Miscellaneous.....									

Part II filled in by physician whose name is signed on Reverse side of this card

Code: D—dentist; F—family doctor; G—glasses; I—institution; M—medical; N—normal; O—operation; O.K.—cured or corrected; R—treatment refused; S—surgical; T—treatment pending; X—improved; — —unimproved; V or VV—degree of defect.

Fig. 1

PUPIL'S RELIEF RECORD

[illegible]

Fig. 2

Peculiar Traumatic Rupture of Kidney*

STURDIVANT READ, M. D.

Brooklyn, N. Y.

THE illustration below indicates the lesion of the left kidney, resulting in such ultimate severe hemorrhage that nephrectomy was necessary. The history, course, diagnosis and findings at operation, present some points of interest. D. E. street cleaner, age 33, married. During childhood many of the exanthemata; pneumonia five years ago; no lues. Neisserian infection 15 years previous which has left him with a stricture in the penile urethra to 22 F. For many years has used alcohol in excess.

June 15, 1921. On admittance, per ambulance, resident's notes were as follows: Poorly nourished, anemic, white male, about 35 years old tossing about bed, moaning with pain. Head and neck; lungs and heart negative findings. Blood pressure 112/80. Abdomen markedly distended with tympanitic note throughout except over entire left flank there is an area of dullness extending back to spine. Entire lower left quadrant is extremely tender and feels as though there is an infiltration or tumor in this region. There is a hemorrhagic area extending from ant. superior spine upward and backward to the vertebrae."



Patient's story: The day before admission had been drinking much gin and whiskey. Went to bed at 9.30. Immediately noticed dull aching sensation in left flank which gradually became so severe that ambulance was called. He had noticed some haematuria. Wife of patient states that he had been complaining of pain in left side for past week, which never became severe until seven hours before admission. The patient was clear and positive in his statements that he had no recollectoin of any blow or injury to left side and denied being too drunk at any time, to have been unconscious of receiving such an injury.

Urine on admission: Considerable haematuria. Six hours later, less haematuria; 12 hours after admission still less haematuria.

* From Urological Service Long Island College Hospital.

June 16. Bladder capacity ten ounces, and same amount of nearly clear fluid recovered. Rectal examination negative.

Blood: 12,400 white cells. 72% polymorphs. Haemaglobin 95%. Morphia necessary to control pain.

June 17. Severe pain in left renal region continues and narcotic needed. Urine less bloody. Tumor mass gradually larger.

June 18. Urine less blood. Tumor mass larger.

Blood: 21,600 white cells. Pain just as severe.

Aspiration of tumor mass in flank, with small needle by resident revealed a small amount blood serum and some clots.

June 19. Fourth day after admission: Temp. 101.5 (the highest). Urine clear with a few red cells.

Tumor mass: Suddenly increased in size and it became more localized and circumscribed and seemingly positively retroperitoneal. (About this there had been considerable doubt for some days.) Pain now agonizing and operation decided upon.

Operation: Usual renal incision extending over large tumor mass in lower left retroperitoneal region. When muscle layers were divided, six pus basins of blood, old and fresh, were evacuated. The lower pole of the kidney was found to be lacerated. The extreme lower tip, a piece about two inches by one and one half inches, was almost completely torn away. This piece was removed. Attempts to quickly control hemorrhage by suturing the renal pyrenchyma were not promptly successful, and patient's condition necessitated rapid completion of operation. Nephrectomy.

Recovery uncomplicated. Dismissed from hospital two weeks after operation.

Remarks: No attempts at ureteral catheterization.

Reasons: Possibility of tumor mass being due to torn ureter, fear of infection from below or further injury of ureter by catheter and disinclination to use general anesthesia which would have been necessary with this patient.

Diagnosis: Rupture of kidney first thought of but patient's history was misleading (denial of injury). Steady diminution of amount of blood in urine suggested that amount of renal hemorrhage was lessening, and as majority of renal tears, resulting in slight haematuria, recover under rest and ice cap, any disturbance of patient or urinary tract is contraindicated until general condition becomes more serious.

Speculation as to mode of injury: During a deep inspiration did the lower pole of the kidney get forced violently against the lower border of the rib or upper crest of the ilium by kick or fall while patient was drunk?

Summary: This case needed early operation, but except for some days of pain no ultimate damage resulted from waiting, even with such a complete laceration. In the majority of cases of moderate haematuria due to trauma of kidney it is wise to wait, as 70% recover. In cases exhibiting pronounced signs of haematuria, rapid pulse and acute anaemia, all risks should be promptly assumed, catheterization of kidneys done at once, to determine the sound side, and immediate exploration of torn kidney should be begun.



EDITORIAL



Professional Betterment

Two addresses were presented before the October meeting of the Associated Physicians of Long Island both of which are published as a part of the Society's transactions; the one on Standards of Medical Practice; the other on How to Relieve the Medical Profession of the Unfit and Unworthy. Mr. Wright, in the former, confines himself almost entirely to questions of hospital betterment and places the problem before the profession in the form of questions of which he does not attempt the answer. Dr. Butler, on the other hand, chooses to emphasize the methods dealing with wrong doers in the profession and points out how they may be dealt with under the law, but does not attack the problem of how to round up the stragglers and keep up the professional enthusiasm of those who are fully as great a menace to the profession—the unprogressive and the careless. In a general way he places upon the council of the County Medical Society the responsibility for dealing with transgressors. Anyone who has served either as a censor, president or secretary of a county society realizes fully that this touches the problem only in an exceptional and superficial way. Many such cases are brought before the Council, and most of them are found to be based largely upon complaints arising from personal grudges or hearsay matters that are more suitably handled by diplomacy than by discipline. The largest problem that the profession has to face is not the problem of moral delinquents, but of intellectual ones. What can we do with a man who has been unable or unwilling to keep up with modern methods of diagnosis, or whose concepts of disease and its treatment crystallized when he left the medical school and are twenty-five years behind the times? Take the case of the hospital staff that has neglected to acquaint itself with the efficient treatment of bichloride of mercury poisoning, and permits its patient to die under the old inadequate method. Who is to rectify this condition?

To one who has been in touch with both sides of the question, with both problem and attempted solution, it seems that the answer can only be found in methods that will insure educational advance. In the United States Army Medical Corps it was recognized some years ago that efficiency demanded something that was not then available. Men of good promise entered the corps and by the time that the course of slow promotion had brought them a captaincy or a majority they had degenerated into disciplinarians and had lost their medical efficiency. In consequence a system of examinations for promotion was instituted whereby a lieutenant could not obtain promotion until

he had passed a professional examination. Should he fail in this he faced the alternative of passing an examination at a later period successfully or being dropped from the corps. The immediate consequence was a tremendous accession of professional energy.

In civil practice there are but two incentives to keep a man up to the fullest intellectual activity, pride in himself and keen competition. If he prefers to fall behind, or what amounts to the same thing, fails to keep step with the advance, there is no compulsion that can be applied to help him in spite of himself. This condition has been recognized by the profession itself, and at least one element within the profession has endeavored to have the public health law so amended as to provide a gentle stimulus in the shape of an annual registration. But the very men who would be most helped have been those who most earnestly oppose this step on the ground that it would place autocratic power, which could be used for political ends; in the hands of subordinate officials of the state. I am not aware that any serious proposal to institute periodical examinations for professional fitness has ever been brought forward, nor do I believe that the general public would consider it necessary because of a prevailing belief that graduation from a medical school makes one a doctor and a doctor ceases to be a student because the public believes him to be a finished product when he has received his diploma. No one realizes better than the physician how fallacious this idea is, and no one is more tenacious of the idea than the unprogressive doctor. The problem then is one that is psychological as well as educational. To insure progress there must be some compulsion. To provide compulsion there must be at least definite public opinion. But in order that the public opinion may be intelligent and sympathetic it must be created and controlled by physicians themselves. At the present writing we must confess to be casting about for some physician whose vision is so broad, whose professional acquirements are so high, and whose humanity is so all-embracing that he may enjoy sufficient confidence among his fellows to give things a start. Small jealousies are all too rife to permit any one coterie to institute the notion of compulsory betterment, but it seems quite evident that unless the profession itself undertakes something very definite and very tangible, something that the public at large recognizes as a wholehearted attempt to give them something better than they are now getting, that same unreasoning public will, on its own initiative, institute steps that may be a hindrance to progress, even as the childish groping of the Russian Soviets have torn down where they thought to build up. The suggestive questions that have been raised in the papers referred to, and the superficial comments suggested above may, it is hoped, help to stimulate a definite discussion upon this vital subject among the profession here. Communications on the subject will be gladly welcomed, and it is suggested that the publication of letters from physicians may be of real help in awakening the proper interest among the profession at large.

H. G. W.

Did You Attend?

Those who attended the regular fall meeting of the Associated Physicians of Long Island at Garden City on the 15th cannot fail to recognize not only the practical value of the meeting, but its enjoyable features as well. While the attendance was good it represented only a tenth of the actual membership of the Society. An analysis of the attendance at the Society's regular meetings brings out the fact that out of those who attend a large proportion are to be found who may be called regular attendants. Not only are they interested in the Society as a society, but they have come to realize that the meetings afford an opportunity for a delightful social intercourse, and are a source of intellectual pleasure and profit as well. No one who heard the discussion on the betterment of medical conditions can fail to recognize that it was a live topic, and that it was handled frankly and fearlessly. The address after dinner was an exceptional one, as was testified to by the close attention that was bestowed upon the speaker during his address.

One cannot help but point to the attractiveness of this meeting as an earnest of what may be expected at the January meeting. Now is the time to begin to plan to be on hand. It is an unfortunate fact that the out-of-town meetings have in the past been much more largely attended by Brooklyn men than have those which have been held in Brooklyn. The explanation is probably to be found in the fact that January is a much more busy month, and that no special preparation is made to keep the day free for the purposes of the meeting. But it may be pointed out that ordinary courtesy demands that the members shall provide a sufficient audience to repay the trouble to which those gentlemen are put who contribute to the program. It is understood that the staff at St. Mary's Hospital will provide the January program. As a matter of courtesy to them, of loyalty to the Society, and of fairness to ourselves let us see to it that we do not miss the opportunity of enjoying an occasion which will doubtless measure up in every way to the splendid program provided for the October meeting.

H. G. W.

A Public Shame

NEW YORK CITY is conceded to be the greatest city in the world. It probably is also the richest city. It numbers among its inhabitants many highly intellectual people, many scientists, and many cultured folk whose ideas upon questions of civic development include a wide range of the most advanced thought—and it has the worst system of garbage disposal in the world. In certain barbarous localities the broken scraps of food are thrown promiscuously about to fester and feed flies. We look with scorn upon the unfortunate heathen who pollute their villages with offal, and we cart our own garbage in open wagons through the public streets by day and by night to a point where it is collected in scows and then towed away to feed the fishes. One sometimes wonders whether a self-respecting fish would be tempted after having had our own senses irritated by a passing cart.

This question of garbage disposal is of vital interest from several

standpoints. At present it is open to certain very definite objections. The original collection is from the householder's receptacle which the law requires to be covered, to a small cart, which as a matter of fact is always uncovered. The handling is done by men who are careless, who batter the pails until the covers will not stay on, and who drip portions of each pailful across the sidewalk or down the side of the cart. There results the small trail of refuse in the wake of the collecting cart. Not until these are heaped too high but then are they covered by a tarpaulin that from constant use is saturated and malodorous, and is at best a very inadequate protection against insects. The accumulation of a number of these carts is then transferred to heavy open trucks which carry the refuse to the pier and dump it in the scows. These carts are heavy automobiles with solid tires driven by men who have no thought beyond getting through their work in the quickest possible way. Many of them are out of repair and are driven in a condition that would not be tolerated by a private owner, but being city property who is there to object to the unnecessary maltreatment of costly automobiles? They are unsuited to their purpose, are extremely noisy, and like the smaller wagons are seldom adequately covered. Also they are driven through some of the finest residential streets of the city without regard to ordinances regarding unnecessary noise or the Board of Health regulations in regard to uncovered garbage. This is a condition that is increasing and which in time must demand the careful consideration of those citizens who take pride in their city. The city budget is growing, and the demands on the city purse are becoming exorbitant, and yet in this particular department antiquated and inadequate methods that are markedly insanitary are being perpetuated at great expense. Beside this, the waters about the city are needlessly polluted and seafood obtained therefrom is rightly under suspicion and it at best of questionable purity.

It must be admitted that the ideal method of garbage disposal has not been found. Local disposal plants conveniently situated would obviate the present method of repeated handling and water pollution, but it is questionable whether an odorless incinerator has yet been found, and the method of original collection is one that requires much thought. The ideal method would be that of placing garbage in water-proofed paper receptacles of a uniform pattern which could be removed from the metal containers without exposing any of its contents. The additional expense of this method would be largely offset by its sanitary advantages. But here again commercialism steps in because some one hopes to get enough silver spoons to make the process of trimming the garbage profitable.

These suggestions are offered for what they are worth in the hope that interest in this important matter may be stimulated so that some day we may say that if not the cleanest city in the world we at least have an adequate method of garbage disposal. At present the Street Cleaning Department and the Department of Health are derelict in their neglect to observe ordinary cleanliness in the use of the antiquated methods that they are still adhering to.

H. G. W.

CORRESPONDENCE

CONSOLIDATION OF GOVERNMENT SCIENCE UNDER SMITHSONIAN INSTITUTION.

Washington, D. C., Sept. 28, 1921.

DEAR DOCTOR:

I trust you will consider this letter as if I had written it out with my own hand, and honor me with as early a reply as possible.

It is very desirable that the opinions of leading American scientists be obtained, as to the re-organization and more especially consolidation of Government scientific bureaus under one head or department. I desire therefore to present a tentative plan for this purpose. Any suggestions or criticisms from you will be presented with those of other leading scientists to the "Joint Committee on the Re-organization of the administrative branch of the Government, for their careful consideration and action.

It is the first time in the history of our Government that the Executive and both parties in Congress have all been seriously in favor of re-organization and consolidation of Government Bureaus and Departments. If the scientific bureaus are to be benefited they must receive serious and early consideration.

It is self-evident that if Government sciences were consolidated under one head they would receive more attention and obtain much greater support. But already there exists an institution which has great prestige and represented the science of the Government in a general way. It is the Smithsonian Institution. It is proposed that this organization should be developed not only in its own bureaus, but also by placing all scientific bureaus of the Government under it with possibly a few exceptions. It is sometimes said that the Smithsonian Institution is a private organization. This, of course, is not true as it already receives more than \$600,000 annually from the Government as an appropriation for its work.

A scientific reorganization and consolidation of all the government departments and bureaus is the purpose of this general movement, inaugurated by the President and this is especially needed in the scientific bureaus.

HERE THE GREAT AIM IN VIEW IS EVENTUALLY TO HAVE OUR GOVERNMENT SCIENCE DEVELOPED TO THE HIGHEST POSSIBLE EFFICIENCY.

It is generally agreed that too many departments or Cabinet officers are undesirable and unwieldy, and that the number should not be increased, but rather diminished. The re-organization and consolidation of scientific bureaus is right in the line with this idea. Moreover, the scientific bureaus are scattered all over the government, many of them illogically or haphazardly placed, and as a result they may have little or no influence, and consequently the scientific workers are paid shameful and minimum salaries. The consolida-

tion of government science under the Smithsonian Institution will tend to give more influence and efficiency to science, and divorce it as far as possible from politics.

If, for instance, any scientific bureau is taken from a department and placed under the Smithsonian Institution, having all its personnel and appropriations intact, the main and perhaps only important difference will be that the chief or director of this bureau will be under a scientific man with knowledge of and sympathy for scientific work, instead of under a Cabinet officer who is not expected to be very conversant with science. Moreover, the Cabinet officer is liable to be changed every four years, and sometimes oftener, so that the chief of a scientific bureau whose heart is in his work, not to mention uncertainty as to his tenure of office; for other than scientific reasons, is kept in much uncertainty as to sympathetic help in his endeavor to develop his work.

The Smithsonian Institution deals mainly with pure science and scientific bureaus of the government function principally with applied science. As an applied science is based upon pure science, they both help one another. Sometimes pure science gets a little too pure and drifts in the air and sometimes applied science becomes a little too practical or commercial or mercenary. But if both these phases of science are put together they tend to reach a happy medium. The foundation—pure science—should not be separated from its superstructure—applied science.

The plan is to place the following thirty-two bureaus or Government organizations under the Smithsonian Institution together with all their personnel and appropriations intact:

1. Geological Survey.
2. Reclamation Service.
3. Bureau of Mines.
4. Patent Office.
- 5-16. All scientific bureaus of the Agriculture Department (12 in number) affording these bureaus still greater opportunity to develop and benefit still further the agriculture of our country.
17. Vital and criminalological and other abnormal statistics of the Census Office.
18. Bureau of Standards.
19. Bureau of Fisheries.
20. Hygienic Laboratory.
21. Bureau of Public Health Service.
22. Army Medical Museum and Library.
23. Government Hospital for the Insane.
24. Coast and Geodetic Survey.
25. Library of Congress (to be called Library of the United States.)
- 26-32. Bureaus of the Smithsonian Institution itself (7 in all).

In reading over this list of scientific bureaus, objections occur to us instinctively, but when we analyze them we will find that most of

these objections are from a long-established habit of regarding various bureaus in connection with the particular department under which we have been accustomed to associate them. I assume that every bureau chief with the scientific spirit will not object to the consolidation of government science on account of some personal inconvenience to himself. The true scientific man is always willing to make some sacrifice, if necessary, when the good of all government science is sought.

The prospect of being under a sympathetic man rather than a political appointee should encourage every scientific man to consider any plan with this in view most seriously. If any one of these thirty-two bureaus should be found not to function as well as formerly under the Smithsonian Institution, it will be very easy to put such a bureau back in its old position or some other better place. But it is very probable that a great scientific independent and non-political department would be considered a most desirable place to be in, where everyone is imbued with the same spirit for the advancement of science in all its branches, pure and applied, working together mutually for this common end. Such an atmosphere would please any scientist.

Now it may occur to some that thirty-two different scientific bureaus under one head is rather a large proposition. My answer to this objection is, that on the contrary it is an advantage from the scientific point of view, because too much organization and resultant red tape are not desirable in scientific work. My idea is to put this plan on a high university plane with university freedom for each bureau. Thus, the president of a large university would not think of suggesting or dictating, for instance to the professor of chemistry how he should conduct his experiments. One of the main duties of a university president is to distribute the available funds among the different faculties according to their real needs and not to interfere in the least with the professors' methods. Briefly, this consolidation plan for science in our Government is to give each chief of each bureau free and full independence as far as the work of his bureau is concerned and then to hold him responsible for results. As it is, he may be under narrow or even arbitrary limitations, if not meddled with, and yet held responsible at least by the public, to whom he cannot explain.

Each chief or director of a bureau would send in his estimates for new specialists, experimental work and clerical service, to the head of the Smithsonian Institution, who would study these estimates and recommend them to Congress. Later the head could take each one of the specialists before the Appropriation Committee to present to that Committee the reasons why he wants these additional appropriations. This procedure would be wholesome, for the specialist would become acquainted with the Committee and its legislative point of view and the Committee would be educated up to the real needs of science.

When the late Secretary of Agriculture, Wilson, first came into this department over which he presided sixteen years under both political parties, he said to his bureau chiefs: "Gentlemen, I am not here to boss you, but to help you." Secretary Wilson fulfilled his promise and the result is that agriculture is the leading scientific department of the Government. Secretary Wilson of Agriculture is a model for every one in power in our Government to follow.

While it is not at present my purpose to go into too many details of this plan, I will venture to make a few suggestions as to certain bureaus and also some general observations. The Census Bureau should be called the United States Statistical Bureau, the word "Census" is now misleading since it is only appropriate once in ten years when the census is taken. The Library of Congress should be called the Library of the United States, or National Library. This change in name and its transfer to the Smithsonian Institution would not in the least curtail any privileges accorded to Members of Congress. The name Library of Congress was appropriate once, but at present this library is much more than a library of Congress. The title of a library should at least cover its field of action, like the title of a book.

The Smithsonian Institution has a library of nearly 100,000 volumes and the U. S. Surgeon General's Library has nearly 200,000 books, and most of these scientific bureaus to come under the Smithsonian Institution have specialistic libraries. This combination of the several libraries under the Smithsonian Institution would tend, of course, to reduce expenses by avoiding duplication of books. As it is at present, the libraries are scattered about, making it very difficult to find out where the duplication exists. There may be an objection to placing the Library of Congress under the Smithsonian Institution, but the main difference would be that the office of the Library of Congress would not be an independent institution under Congress, but just as independent under the Smithsonian Institution. Instead of leaving the present and most competent incumbent alone in his efforts to develop his great library, he would receive additional aid and encouragement from the head of this new and greatest department of the Government. In such an atmosphere library science could develop more freely and more easily. The same would be true practically for all bureaus coming under this independent department of science in its broadest sense. In fact, there is already a Smithsonian division in the Library of Congress. The term "library science" has come to stay; the Library of Congress, which is developing library science to a high degree of efficiency, could well come under the Smithsonian Institution.

But some one says, how about literature and history? Yes, there is a science of literature and history, at least there are scientific methods being applied to them; also scientific

philological studies are already being carried on under the science of anthropology.

Helmholtz once said that the number of sciences would become so great that it would be almost impossible to learn their names. Science and scientific methods have now the floor in the realm of knowledge, and are fast entering into all new fields. Let the United States lead the world in these new directions on the frontiers of knowledge; the United States can do this if it will, and an opportunity now is given to take the first step which is to place all Government science under the Smithsonian Institution.

In our country medical science is already leading other nations in certain respects. But Government medical science has not been very influential nor is it taking the position which its importance demands. A beginning has been made, however, in the Bureau of Public Health Service, the Army Medical Museum and Library and the Government Hospitals for the Insane. In all of these three bureaus to be placed under the Smithsonian Institution, scientific work is carried on. The catalogue of the Surgeon General's Library, consisting of a very large number of volumes, in three separate series, is considered in Europe the best work in this line in the world. Yet, through the economy of Congress, this library has been compelled to reduce this most valuable catalogue in size and practically hamper its utility. The Government Hospital for the Insane has done some most advanced and valuable work on the brain. These medical organizations fall naturally under the consolidation of Government science. At present they have most inadequate appropriations and salaries, but under the present proposed plan they would receive special attention and help.

I might suggest also that in inviting scientific men to take up permanent work under the Government it be understood, and so stated, that they can not be removed from their positions without very serious cause; that their work is their life work, and considered from the point of view of a university professorship. If such a plan should be followed there would not be any great difficulty (as there is now) of obtaining the best scientists to work under our Government. The salary should be adequate, but not necessarily large. A true scientific man in love with his work is more concerned about permanency of his position and independence in his work than salary. We would then have, probably, under this plan, the greatest department of Government, without a cabinet officer, but under a permanent head.

But how about getting the right man for such a place? The men who elect the head of the Smithsonian Institution are the Chief Justice of the United States, who is chancellor of the Board of Regents, which consists of the Vice-Presidents, three members of the Senate, including both political parties; three members of the House, also including both parties, and six citizens of the United States, who are at present: Alexander Graham Bell,

John B. Henderson, both of Washington, D. C.; George Grey, of Delaware; Charles F. Choate, Jr., of Massachusetts; Henry White, of Maryland, and Robert S. Brookings, of Missouri. There could hardly be much more trustworthy body of men for choosing a scientist for the place when at some future time it becomes necessary to elect a successor to the very able and distinguished scientist who now is at the head of the Smithsonian Institution.

The scientist elected to be the head of this new scientific department would probably not be thoroughly conversant with more than three or four sciences so that there would be under him, say, some thirty scientific bureaus, the domain of which he really knows little or nothing about. If he should favor his own science to the disadvantage of other sciences, or if he should meddle in the work of the other bureaus, he would not be able to stand long the criticism of scientific men. But there is very little probability of this and, if it should occur, publicity, the greatest power in this country, would soon correct it.

In most of the departments, except the Agricultural, there are relatively very few scientific bureaus, usually only two or three, over against some fifteen, twenty or thirty other divisions or bureaus. Of course, such scientific bureaus are generally only helped by their departments to the extent they are useful to the department itself, and this depends upon the opinion of a cabinet officer who is usually ignorant of science. The result is that many of these scientific bureaus scattered about in the departments are developed very slowly, if not standing still. Their appropriations are very inadequate, their service much crippled and, worst of all, their independence greatly limited. Of course, no first class scientist would take such a place or remain in it long unless compelled by force of circumstances. With very few exceptions these scattered bureaus of science could serve these departments at least just as well and probably much better if under the jurisdiction of the Smithsonian Institution.

SUMMARY OF PLAN

The purpose and advantages of this plan for the consolidation of government science under the Smithsonian Institution are summed up as follows:

1. To develop government science to the highest possible efficiency.
2. To correct illogical and haphazard arrangements of bureaus or departments.
3. To reduce political influence in scientific bureaus to a minimum.
4. The efficient development of scientific bureaus under a scientific head is much more probable than under a political head.
5. To unite pure and applied science into a happy medium, increasing the efficiency of both.
6. To encourage scientific men in their work, which means toward efficiency.
7. To put Government scientific work upon the high university plane.

8. To avoid duplication of scientific work, appropriations and duplication of library books. It also facilitates their proper distribution.
9. To advance government medical science, which has been much neglected.
10. To give permanency of position and independence to experts, making it possible to get the best men of science to work for the government.
11. To make very improbable interference or meddling of the head in the work of the many bureaus under him.

I trust you and every scientist, to whom this letter is sent, will express his views freely as to this plan or propose any new plan (at earliest possible convenience) and should he not desire his name mentioned will so indicate, in which case I shall, of course, follow his wishes. Requesting that all letters be typewritten, I have the honor to remain,

Most faithfully,

ARTHUR MACDONALD.

Address: Arthur MacDonald,
The Congressional,
100 East Capitol Street, Washington, D. C.

N. B. If you are a member of any scientific or medical organization, I should be glad if you would have, as soon as possible, the following resolution (or some similar one) presented and acted upon as early as possible.

RESOLVED, That the..... favors the general plan of putting the scientific bureaus of the Government at Washington under the jurisdiction of the Smithsonian Institution, with the view of developing Government science to its highest possible efficiency by affording workers permanent tenure of office, greater freedom in investigations, non-interference of politics and adequate salaries.

After the resolution is acted upon, kindly have it sent to me at once to be presented to the Joint Committee on the Reorganization of the Administrative Branch of the Government. I am requesting scientific endorsement at the suggestion of the Chairman of the Joint Committee.

Please write to your Congress and Congressman, urging this plan.

ASSOCIATED PHYSICIANS OF LONG ISLAND

The Seventieth Regular Meeting of the Associated Physicians of Long Island was held at the Garden City Hotel, Garden City, N. Y., Saturday, October 15th, 1921 and was called to order by the President, Doctor Harris A. Houghton, at three-thirty o'clock. About one hundred guests and members were present. As the minutes of the previous meeting had been published in the Long Island Medical Journal the reading was dispensed with, by general consent.

The Membership Committee recommended the election of the following applicants for membership and they were, unanimously, elected;

Proposed by Dr. Alfred Winfield White:

Dr. Frank F. Brennen, 1081 Park Place, Brooklyn, N. Y.
University and Bellevue Medical College,
New York, N. Y.

Proposed by Dr. Everett Colgate Jessup:

Dr. Benjamin R. Allison, Lawrence, N. Y.
College of Physicians and Surgeons, New York, N. Y. 1915.

Proposed by Dr. Warren L. Duffield:

Dr. Francis William Moore, 98 Brooklyn Ave.,
Brooklyn, N. Y.
College of Physicians and Surgeons, New York, N. Y., 1910.

Proposed by Dr. James Cole Hancock:

Dr. Francis J. Magilligan, 135 Bergen Street, Brooklyn, N. Y.
Bellevue Medical College, New York, N. Y., 1890.

Dr. Thurman Boyd Givan, 61 Pierrepont Street,
Brooklyn, N. Y.

Vanderbilt University, Nashville, Tennessee 1914.

Dr. Ralph Grant Yeaton, 1046 Forty-fourth Street,
Brooklyn, N. Y.

New York Homeopathic Medical College,
New York, N. Y., 1909.

Dr. Lawrence P. A. Magilligan, Central Park, N. Y.
Bellevue Medical College, New York, N. Y., 1893.

Dr. Abraham A. Goldstein, 8720 102nd Street,
Richmond Hill, N. Y.

University and Bellevue Medical College,
New York, N. Y., 1918.

Doctor William H. Ross presented a short report from the Publication Committee in which it was stated that the Journal was soon to be published by another house.

The President appointed the following Committees to report at the Annual Meeting: A Nominating Committee, Drs. Elias H. Bartley, Frank Overton and Henry Goodwin Webster. An Auditing Committee, Drs. Herbert Dana Schenck, William J. Malcolm and Warren L. Duffield.

The Scientific Session, over which the President presided, was opened with a paper by Mr. Henry C. Wright, former Deputy Commissioner of Charities, on "Standards of Medical Practice; How Created and How Maintained." This paper was followed by an address by Doctor William E. Butler, Counsel for the Society, who took as his subject, "What Can be Done to Relieve the Medical Profession of the Unfit and Unworthy?" The paper and the talk were, jointly, discussed by the following: Drs. H. Beekman Delatour, Frederick C. Holden, Frank Overton, William Lathrop Love, Isham G. Harris, Charles J. Lundbeck and William Browning. The paper, address and discussions will appear in another part of the Long Island Medical Journal.

The dinner was served promptly and was most satisfactory. At the close the President introduced Doctor Weston B. Estes, who, having spent many months in Russia, and becoming thoroughly familiar with conditions there in the recent past, was in a position to give us much "first hand" information of the greatest interest and instruction, and judging by the rapt attention his address received for the hour and a half it lasted, he, did this. This most interesting address will be printed in the Long Island Medical Journal.

Votes of thanks were tendered Dr. Butler, Mr. Wright and Dr. Estes.

JAMES COLE HANCOCK, Secretary.

MEDICAL BOOK NEWS

Edited by JAMES M. WINFIELD, M. D.

All communications, books for review, etc., should be addressed to the Editor of this Department, 1313 Bedford Ave., Brooklyn, New York

November, 1921

4 Pages

PRACTICAL MEDICINE SERIES, 1920.

THE PRACTICAL MEDICINE SERIES. Comprising Eight Volumes on the Year's Progress in Medicine and Surgery. Under the General Editorial Charge of Charles L. Mix, A. M., M. D. Series, 1920, Volumes 5, 6, 7, and 8. Chicago, The Year Book Publishers. Price of Series, \$12.

Volume V is on *Gynecology and Obstetrics*,

The first section of the volume is devoted to Gynecology and is edited by E. C. Dudley, while the second is concerned with Obstetrics and edited by Joseph B. De Lee. The high standing of these editors in their respective fields makes extremely valuable their personal views, which are frequently appended in the form of footnotes at the end of the summary of an article.

Volume VI. *Pharmacology and Therapeutics: Preventive Medicine*.

The section on Pharmacology and Therapeutics is edited by Bernard Fantus, and gives in a condensed but clear manner a surprising number of valuable facts and suggestions in the sphere of drugs and their use in treatment of disease.

Preventive medicine is so much to the fore at the moment that the numerous articles reviewed and abstracted in the second section strike a very opportune note. This section is edited by Wm. A. Evans of Northwestern University Medical School.

Volume VII. *Skin and Venereal Diseases*.

This volume is edited by Oliver S. Ormsby and James H. Mitchell and is a praiseworthy resumé of the articles published in this field in the past year.

There are two main divisions of the text, of which the first is on Dermatoses and the other on Venereal Diseases. In the latter section the recent advances in the treatment of those twin plagues, gonorrhea and syphilis, are fully set forth.

Volume VIII. *Nervous and Mental Diseases*.

The editor of this volume is Peter Bassoe and it is given over mainly to Nervous Diseases, about three-quarters of the reading

matter being taken up in this way, while Mental Diseases make up the remaining quarter. War neuroses, and diseases or lesions of the nervous system due to war conditions, are especially considered in many of the articles reviewed.

The praiseworthy features of this system of year books may be said to be mainly these: Convenient small size of the books; index of both articles and their authors; personal note of criticism by the editors at the end of each article; the foresight of the editor-in-chief in gathering around him, as section editors, men of recognized standing in their particular field of work.

W. H. DONNELLY.

PRACTICAL MEDICINE SERIES, 1921.

THE PRACTICAL MEDICINE SERIES. Comprising Eight Volumes on the Year's Progress in Medicine and Surgery. Under the General Editorial Charge of Charles L. Mix, A. M., M. D. Series 1921. Volume 1, General Medicine, Edited by Frank Billings, M. S., M. D. and Burrell O. Raulston, A. B., M. D. Chicago; The Year Book Publishers. 630 pages, 38 plates. 12mo. Cloth, \$2.50. Price of series of eight volumes, \$12.00.

This system of books synthesizing the advances and publications in the various fields of medicine fills a very definite place in medical literature.

No matter how ambitious a reader any practitioner may be, he can hardly have the time to summarize the work of any given period in a thorough or satisfactory manner. Consequently these little volumes supply a real demand for such summarizing.

The volume under consideration here is on General Medicine and has its contents divided as follows: Progress of Medicine, Infectious Diseases, Diseases of the Mediastinum, Diseases of the Bronchi and Upper Air Passages, Diseases of the Pleurae and Lungs, Diseases of the Heart and Blood-vessels, Diseases of the Blood and Blood-making Organs, Endocrinology, Metabolism, Diseases of the Urinary Tract, Diseases of the Gastro-intestinal Tract, Diseases of the Liver and Gall-bladder, Diseases of the Pancreas, Food De-

iciency Diseases and Miscellaneous Diseases.

The established high standard of former years is fully maintained this year and therefore the value of the work is simply more firmly established.

W. H. DONNELLY.

PRINCIPLES OF HUMAN PHYSIOLOGY.

PRINCIPLES OF HUMAN PHYSIOLOGY. By Ernest H. Starling, M. D., F. R. C. P. Third Edition. Philadelphia, Lea & Febiger, 1920. 1315 pages, 579 illustrations. 8vo. Cloth, \$8.00.

This text book needs no introduction to students and practitioners of medicine. The third edition presents few gross changes over its predecessor, beyond the correction of mistakes and omissions. The exception is the section on the Sense Organs which has been largely revised and rewritten by D. H. Hart-ridge, the section on Vision being entirely new.

Always a popular text book, the wider application of chemical methods of reasoning to physiological problems, which is becoming more and more apparent, can but add to that popularity, for this work seems to be especially excellent from that point of view.

G. H. R.

TRAUMATIC SURGERY.

TRAUMATIC SURGERY. By John J. Moorhead. M. D., F. A. C. S. Second Edition, entirely reset. Phila. and London, W. B. Saunders Company, 1921. 864 pages with 619 illustrations. 8vo. Cloth, \$9.00.

Even though one be limited to a "Five foot shelf of Books," he should reserve "three inches" for Moorhead's Traumatic Surgery—second edition. In this day of automobiles and garages and the ever increasing number of factories, with the consequent increasing number of individuals engaged in their maintenance; nearly every doctor, in cities and country places, is called upon to attend some surgical condition, emergency or otherwise, and this work meets the requirements of the busy surgeon or the "casual surgeon," both in the medical centers and in the outlying districts.

The chapters on Wounds and their Complications; Dislocations; Fractures; are rich in details of symptoms and treatment and are very well illustrated. 245 pages are devoted to fractures.

Traumatic Neuroses, Medico-legal aspects and Standardization of First Aid methods are thoroughly and interestingly discussed.

While there is a certain amount of more or less elementary material, it is good to have these facts repeated and refreshed in our minds and we must not lose sight of the fact that younger men are always coming up.

It is good to see the Carrel-Dakin Technic kept before us, for we all have seen its benefits and it cannot be discarded.

Moorhead has written an adequate working description of it. Finally, it is an "authoritative work."

G. FRANK SAMMIS.

PHYSICAL DIAGNOSIS.

PHYSICAL DIAGNOSIS. By W. D. Rose, M. D. Second Edition. St. Louis, C. V. Mosby Company. 1921. 736 pages, 309 illustrations. 8vo. Cloth, \$8.50.

The second edition of this work covers a large field. Many subjects, such as radiographic diagnosis are scarcely touched upon and might just as well have been omitted without detracting from the value of the book. Under examination of the heart, electrocardiographic and polygraphic diagnosis are entirely neglected. Otherwise the book can be recommended to the student and practitioner. The illustrations are commendable.

HENRY JOACHIM.

SKIN DISEASES AND THEIR TREATMENT.

A HANDBOOK OF SKIN DISEASES AND THEIR TREATMENT. By Arthur Whitfield, M. D., (Lond.), F. R. C. P. Second Revised Edition. London, Edward Arnold, New York, Longmans, Green & Co., 1921. 291 pages, 56 plates. 8vo. Cloth, \$6.00.

In the beginning of this book where the author outlines the anatomy and physiology of the skin, he has left out many things which should have been said, even in a book of small size, if he wanted to convey any definite impression of his subject. We can approve more of his general therapeutics which gives the reader some of the essential elementary knowledge for proper treatment.

As for the author's methods of handling the diseases themselves, we must steer a middle course and say he has written both well and poorly. Some very common conditions he has neglected so sadly that a reader would learn nothing. As an example of this, we might mention the dermatitis produced by poison ivy. On the other hand, in ring-worm his words, especially on treatment, are more extensive and precise, even including X-ray therapy.

The most unique thing in the book to our mind is his method of treating Syphilis, and for which he claims better results than we can apparently obtain with the same amount of drug. He gives three full doses of Neo-arsphenamine at three week intervals for acute cases. This with mercury in the intervals,—and he champions the cause of oral administrations,—gives negative Wassermann reactions. In old cases rarely more than two such courses are required. This would indicate that we use too much salvarsan in too short a period of time and cause our patient unnecessary strain on his eliminatory apparatus and, also, his pocketbook.

There is nothing especially new in the book. It is of interest to see how our contemporaries abroad differ in the general routine of treatment, as for instance, the management of syphilis.

The work is profusely illustrated with excellent black and white photographs.

VITAMINES.

VITAMINES, ESSENTIAL FOOD FACTORS. By Benjamin Harrow, Ph. D. New York, E. P. Dutton & Co., 1921. 219 pages. 12mo. Cloth, \$2.50.

This is a popular discussion of the essential facts relating to the accessory food factors, generally known as the vitamins, their classification and their relations to nutrition and the deficiency diseases.

The author has avoided technical terms as much as possible and without sacrificing scientific accuracy, as is so often done in attempting at popularizing scientific subjects.

The book is therefore up to date, readable and interesting to those already familiar with the general subject of foods and nutrition.

Of course it would be impossible to discuss dietetic deficiencies without giving an account of the results of these deficiencies as demonstrated in the feeding of lower animals, a discussion of the deficiency diseases, beriberi, rickets, scurvy and pellagra. The history and development of our knowledge of these subjects during the past decade has been condensed into one hundred and sixty pages. This is followed by a chapter on "Summary and Practical Applications" in which the applications of the facts previously stated to dietetics and nutrition are given.

In the appendix which follows there is a very useful table of the distribution of the three chief accessory food factors in common foodstuffs, and the report of the British Committee on Accessory Food Factors issued in June, 1919.

The book is to be recommended to all physicians and dietitians. E. H.B.

INFECTIONS OF THE HAND.

INFECTIONS OF THE HAND. A Guide to the Surgical Treatment of Acute and Chronic Suppurative Processes in the Fingers, Hand, and Forearm. By Allen B. Kanavel, M. D. Fourth Edition thoroughly revised. Phila. and New York, Lea & Febiger, 1921. 500 pages, 185 illustrations. 8vo. Cloth, \$5.50.

To those familiar with the three previous editions of this most original work, this issue presents the added knowledge of gas bacillus and streptococcus infections, and a chapter upon the restoration of function in infected hands, while to those receiving it for the first time, the deductions founded on experimental and anatomical studies will reveal it as the pioneer work and the classic.

The section on the anatomy of the hand

and forearm and its relation to infections of the synovial sheaths and fascial spaces, the spread of infection from any given primary focus, the differential diagnosis and deductions as to proper treatment based on the underlying pathogenesis, will be a revelation to the uninitiated.

The lymphatic infections are thoroughly covered in 90 pages. Then follow chapters on allied infections, complications and sequelae of hand infections and restorations of function.

The author places special emphasis on care in the diagnosis and treatment of tenosynovitis. He states "an increasing experience has demonstrated that with careful and intelligently directed treatment, hands suffering, even from this dreaded complication, may be restored to complete function."

The book contains 500 pages, illustrated with 185 engravings, and throughout there is a lavish use of clinical material. In all 55 clinical records are detailed for the purpose of emphasizing a point or corroborating a deduction. The book is an excellent work of reference containing as it does so much that is not to be found elsewhere. W. V. P.

ON BONE FORMATION.

ON BONE FORMATION, ITS RELATION TO TENSION AND PRESSURE. By Dr. Murk Jansen. Manchester, University Press, London & New York, Longmans, Green & Co., 1921. 114 pages. Plates. 8vo. Cloth, \$7.50.

The author deals with the forms of Bone—not with Bone growth. The accepted theory of Wolff's law that both pressure and tension produce equal trophic stimulus to bone formation, and that these mechanical factors solely determine the formation of bone, are disputed by the author. He attempts to prove that pressure is the only one of these two factors to cause any trophic stimulus and that tension has no trophic effect on bone.

After studying numerous sections of Bones, his interpretations of pressure and tension stresses are not similar, but, "Instead of a similarity in the reaction of bone to pressure and to tension, we here meet with a contrast: on increase of pressure a thickening of the bone elements, on increase of tension a thinning of the bone elements."

In place of Wolff's law of transformation, he suggests the following rule: "The form of bones given, the bone elements place or displace themselves in the direction of functional pressure."

The book shows deep study and careful investigation on the part of the author. It ought to stimulate further research along the same lines.

It is very well illustrated by photographic plates of bone sections and diagrams.

The orthopedic surgeon and anatomist ought to be particularly interested in this treatise.

J. B. L'EPISCOPO

THE ALLEN TREATMENT OF DIABETES.

THE ALLEN (STARVATION) TREATMENT OF DIABETES, with a Series of Graduated Diets. By Lewis Webb Hill, M. D. and Rena S. Eckman, Dietitian. Fourth Edition. Boston, W. M. Leonard, 1921. 140 pages. 12mo. \$1.75.

The fact that this little book has gone through four editions shows that it has in a way fulfilled its mission. It is as useful a book now as it was when first published. For the benefit of those not acquainted with this volume of 140 pages, it contains a clear exposition of the method of getting a sugar-free urine from a diabetic patient. There are also a number of typical case reports with dietetic treatment in detail. Following this is a brief explanation of the nature of diabetes for the patient with a description of methods of urine examination for sugar. The diet tables have been carefully prepared, together with recipes for various foods, and will be useful to the patients in preparing the foods. All physicians will not agree with these tables for use, many physicians like to prescribe their own diets for individual patients. The book is a serviceable one for patients to have.

HENRY MONROE MOSES.

BOOKS RECEIVED.

Books received for review are acknowledged promptly in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases review notices will be promptly published shortly after acknowledgment of receipt has been made in this column.

BIOCHEMISTRY; A STUDY OF THE ORIGIN, REACTIONS, AND EQUILIBRA OF LIVING MATTER. By Benjamin Moore, M. A., D. Sc., F. R. S. New York, Longmans, Green & Co., 1921. 340 pages. 8vo. Cloth, \$7.50.

A MANUAL OF PHARMACOLOGY. By Walter E. Dixon, M. A., M. D. Fifth Edition, completely revised. London, Edward Arnold & Co., New York, Longmans, Green & Co., 1921. 468 pages, illustrated. 8vo. Cloth, \$6.00.

DISEASES OF THE SKIN. B Richard L. Sutton, M. D. Fourth Edition, revised and enlarged. St. Louis, C. V. Mosby Company, 1921. 1132 pages, 969 illustrations and 11 colored plates. 8vo. Cloth, \$9.50.

SURGICAL CLINICS OF NORTH AMERICA. Published Bi-Monthly by the W. B. Saunders Company, Phila. & London, August, 1921, Vol. 1, No. 4, Chicago Number. Price, per year, Paper \$12.



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Russian Experiences

DR. WESTON B. ESTES.

AT the conclusion of the dinner, Dr. Houghton, the President, called the members to order and introduced Dr. Weston B. Estes, as the speaker of the evening.

"Dr. Estes was a Captain in the Army during the War and worked with me in New York. He 'fought, bled, and nearly died' during that period on its streets. I know that he fought the Germans. I also know that he nearly died, because fate and the General Staff kept him from France, where he really desired to be. So, after the War, being a man who would much rather be on the inside looking out than on the outside looking in, and feeling that there was something going on in the world which he was missing, he went to Soviet Russia. He literally had to break his way in, using a moving picture proposition as a sort of a camouflage. He has brought out, despite his suffering, a big story, a bigger one than he will have time to tell this evening. I know whereof I speak when I say that no authentic news has come out of Russia concerning the condition of the medical profession under communism, nor the intimate working of its public hospitals. Only a little along this line has appeared in the English press, and none in that of the United State. So his address will be doubly welcome. In detail, his subject is: 'Hospital Life in Soviet Russia.'"

A stenographic report of Dr. Estes' address follows:

Mr. President and Members of the Associated Physicians of Long Is.:

My answer to this introduction on the part of my good friend, Dr. Houghton, is that, notwithstanding there were some difficulties in entering Soviet Russia, I came to the conclusion afterwards that the commissars were in reality glad to see me. They opened the gate and after I stepped over the border, they closed it very quickly. In Esthonia, they couldn't arrest me; in Moscow, they could. I have every reason to believe that they were anxious to get a hold of me. As a matter of fact, to take moving pictures was something of a camouflage

* An address before the Associated Physicians of Long Island.

because I was really very anxious to do some business with the Communists and their Government. For two years, we had heard from many sides—and you hear it today—that the blockade of Russia was responsible for the chaos and devastation which is there. There is that element of doubt in the minds of many people as to the facts. Is there a real blockade, or is there a chance to do some business with these people? I had a strong desire to find out the truth about these things, and find it out for myself. I gathered a little company of business men together, and they told me to get the truth. They said to me, if there is a blockade, we will break it. We will sell Russia or any other country those wants which we manufacture. At the same time, I was interested in moving pictures because there is a demand in this country for authentic information concerning those things which are going on in Soviet Russia. Facts are wanted by the American people more than anything else.

I had been in contact with the radicals and communists in New York City and had reached the point of having an eager desire to know. It is a fact that very few of us know much about the Communist movement or its present-day dangers. You may say that these people are fanatics, but some are very sincere. They as well as we depend on foreign sources for information, and they are very strong and very dangerous. These people believe in Lenine and believe that he has done something worth while. Some of these radicals also asked me to go into Soviet Russia and they helped me get there, and they said that they wanted pictures taken of the great schools which reputedly had been set up in Russia by Lunacharsky, where all men and women up to forty-five years of age in Russia were given two years in which to learn to read and write! We also wanted to know more about his wonderful system of children's colonies.

I left New York in January, 1920, on the steamer "Stavangerfjord" and first landed at Christiania where I met the Swedish radical Stangu. I realized afterward that Stang was quite as ignorant of true conditions in Russia as radicals in other parts of the world. Stockholm was the next stopping point, where I met Ström and Hellberg, the official Soviet representatives in Sweden. They advised me to see Litvinov, the chief Soviet agent outside of Russia. I did see Litvinov at Copenhagen where we discussed the possibility of selling American-manufactured goods to Russia. Then we went to Finland where in Helsingfors I came into close contact with the Finnish Reds. Our application to enter Russia was made at Reval, Esthonia, to which point we went from Helsingfors. By that time the Polish war had just begun and practically all *visés* were being denied, except to a few well-known foreign communists who were enroute to attend the Second Congress of the Third Internationale to be held at Moscow. We waited in Reval three and a half months and finally, by a little manipulation, succeeded in getting our papers stamped, and this is how we did it.

When I was in Helsingfors, John Reed, the American communist, was under arrest by the Finnish Government, imprisoned at Albo, and stopped in an attempt to reach America. I had something to do in procuring his release, and after his return to Russia I secured authentic information to the effect that John Reed's life was in danger. I wanted to get into Russia and I used these facts to get there. By use of those devious ways which, under the circumstances, people communicate, I sent word to John Reed that I knew his life was in danger even in Russia and that he would never be allowed to leave it again,

alive. The plan worked, for the following reasons: John Reed knew me and knew that I was "safe." He had been betrayed by certain radical elements in Helsingfors and he himself knew that his life was in danger, therefore he was eager to seek information from me and further assistance in getting back home. Reed obtained my *visé* personally from Tchitchierin, the Commissar for Foreign Affairs. The gates were opened and on August 2nd, 1920, I crossed the frontier.

The Russian train in which I reached Petrograd was typical of the transportation facilities as they existed at that time. The cars were dirty and unkempt: the train never proceeded at a greater speed than twenty miles an hour, with frequent stops on account of defective equipment. The air brakes refused to function once, and twice the running gear of cars broke down. Many car windows were broken. The train was so crowded that people rode on the steps. When we arrived at Petrograd, late in the evening, there were no lights in the ordinary coaches with the exception of a few candles.

On the way across country we saw many men working in the fields, as it was harvesting time. Apparently there was nothing the matter, nor were there any unusual conditions. We counted the factory chimneys in an effort to judge of industrial conditions. I counted two hundred dead stacks and about a dozen from which smoke was issuing.

We walked around the streets of Petrograd for two days. There was no evident disorder. There was a great deal of grass growing in the side streets while the main thoroughfares, such as the Nevsky Prospekt, were fairly clean. The shops were all closed on that famous street; the only places that we saw open were soldiers' and sailors' tea rooms, a Soviet aptke (or drug store) or two and a few government food shops before which long queues of people were waiting for service. We also saw one flower store, and the Singer Sewing Machine Building, which was open.

Apparently most of the street car lines centering in that district were in operation. Under government control no one paid fare and the consequence was that every car was jammed. People stood in long queues at stopping points to board, and seemingly waited hours for the opportunity to ride to their destination.

Under the Czar's Government the Petrograd-Moscow Express covered the distance between those cities in seven hours. Our train consumed fourteen hours, arriving in Moscow at noon. We were met at the station by an automobile, and by a man who afterwards was destined to play a large part in our Moscow experiences, Mougelefski, who was commissar for the Foreign Section of the Extraordinary Commission, which is the highest authority in the Soviet Government. His position is one which means as much as the descriptive name implies. The "Cheka" really runs the Russian Government through terrorism. It is a court of first and last resort from which there is no appeal. Not even Lenine or Trotsky negative its decisions, so that Mougelefski typifies the character of the government for which he works. Mougelefski is a Polish Jew of the exaggerated variety. He used to be a gambler and shady character. He was a man about thirty-five years of age, with a wicked face. A slight defect in one eye gave him the appearance of having a tendency toward cross-eye. Mougelefski is decisive and of quick manner, wasting little time on preliminaries. Later, when appearing before the "Cheka" and under arrest, Mougelefski told me that the "floor of this room is soaked with the tears of persons pleading for mercy, but this is no place for mercy.

"This is a place to exterminate counter-revolutionists." Mougelefski in his way is the most powerful man in Russia, and the fate of foreign prisoners rests entirely in his hands.

Mougelefski took me to a sadly deteriorated apartment house which in older days was a fashionable residence. A little later John Reed called, apparently eager to know what information I had for him that would be helpful. We talked nearly an hour. In this conversation I began to get an inkling of true conditions, and Reed told me a few minutes before we parted that things were not going as well there as world communism would have us believe. In the meantime Mougelefski, ever watchful, dodged in and out of the room without taking the precaution of knocking. This made Reed nervous and we did not finish our conversation. He finally left, with the remark that he would meet me on the day following.

I did see John Reed once more. On the following night, he acted as my interpreter before the Extraordinary Commission for the Suppression of Counter Revolution, the "Checka" and then he passed from my personal observation. With prison at hand and death staring me in the face, he whispered, as he left the room of inquisition, "Do not worry, everything will come out all right. I will help you all I can."

It would be a difficult matter to prove that John Reed was murdered, and yet if he had been, the event would have fitted in perfectly with my previous knowledge to the effect that his life was in danger, and with my knowledge of political conditions. It must be said that the Communist Party in Russia was divided into two factions, the Jewish and Gentile groups, with the former in the ascendancy. You may perhaps have noticed that the Communists have been cleaning house. It has been cleaned so that now only about half are left. Jews are in absolute control of the party without even a respectable minority. Obviously, John Reed did not belong to the Jewish majority. His race and his sincerity in his beliefs raised suspicions in the minds of his Jewish antagonists. It has been officially recorded that he died of typhoid fever. His own wife, herself a sympathizer with Bolshevism, says that he died of neglect. I doubt if the truth will ever be fully known.

When John Reed left my room at the hotel, Mougelefski reappeared. He spoke no English, and going out again, there immediately came in five agents of the "Checka." One of the men had been a sailor and undoubtedly, Bolshevik-like, he was put in charge of the party because of the paucity of his English. They searched and re-searched us thoroughly for three hours; went through our clothes everywhere. Then, under arrest, we were taken in an automobile to a prison at No. 2 Lublanka. Then occurred another examination lasting four or five hours. The heels of our shoes were knocked off; linings of our satchels split; coats and clothes ripped to pieces,—in fact, we were thoroughly searched. All personal documents were seized. At two o'clock in the morning, allowing us each a towel, Mr. Flick and I were ushered into the courtyard, and after another thorough examination by the keeper of the prison, we were placed in separate cells.

It was a simple, small room in which I was placed, and I remember that I was amused at the absurdity of finding myself locked up in a room. It was about 7½ by 11 feet—three boards nailed together resting on saw horses for a bed—and a table. The window

was rather large, barred, and with frosted panes to prevent seeing out. It was of the customary Continental type with double sashes, and was nailed up. And in this room, on the second floor, I was kept in solitary confinement for three months, during which time I was subjected to twenty-three inquisitions before the counter-revolutionary tribunal or "Checka."

Our food was very insufficient during the eight months that I was in this prison. The quarters were so ill heated and dirty, and lack of exercise and the crowded condition generally so undermining that finally these things told on my health and one by one symptoms began to appear which under ordinary circumstances, would have entitled me to hospital treatment and the care of a doctor. That was not my lot, however, for several months. The inroads on my health began to be greater and greater. Finally, at the protest of a fellow prisoner, who was a Russian doctor, an interesting character appeared to "write me" into a hospital. She was a certain Dr. Feinberg, a Russian Jewess who again represented a type which is in control of Soviet forces. Dr. Feinberg headed a Commission, and as such had authority in all matters pertaining to the health of prisoners in Moscow. Her decision was final and absolute in such matters. When she appeared in my cell she presented a rather welcome diversion. Her hair was sloppy and bobbed. It was tied with a dirty red ribbon—and she had a suspicious habit of scratching her head. Her clothes were soiled and mussed. Dr. Feinberg is very near-sighted and wears thick glasses. Her fingernails were uncut and black with dirt. This was the woman who had absolute authority over the health of one hundred thousand prisoners in Moscow and final say as to whether I was sick enough to go to a hospital. The fact that I had a hernia, dysentery, neuritis, insomnia and was scorbutic did not weigh in Dr. Feinberg's mind as causes for admission to her hospital. The determining factor was that I had a fever. Therefore, I think I am justified in my conclusions that her professional capacity was not large.

It was a cold March day and the snow was on the ground when I was ordered to leave the cell with my pack. The guard took us to the curb station where I stood for nearly an hour, with another sick man, *en route* to the hospital. And this brings up an interesting incident. At this time one of the few things that had not been nationalized in Russia were the *droshkis* or public horse cabs. I am satisfied that even the Bolshevik could not have done this. The procedure which followed gave us something to laugh at. A cab was commandeered by the leader of the guard, during which process there was a long and wordy argument between the driver and the officer. Then we climbed in, drove three or four blocks and the driver refused to go any farther inasmuch as another cab was nearby. The driver never by any chance paid any attention to his starving horse, but devoted his attention entirely to our soldier. In four and a half miles to Butyrki prison hospital we were transferred from cab to cab nine different times, each driver growing more vociferous in his protestations. Some of the arguments were terminated only when the guard drew his pistol.

On arrival at the hospital the first thing that happened was that all our street clothes were taken away from us. We were supposed to have a receipt for them, but on leaving it is quite customary to be told that your boots or your hat, or something else, have been stolen. They shoved me into a ward where there were thirty-five patients

reached its climax, you will be interested in, because it is the logical culmination of a program initiated by Workmen's Compensation Acts and Compulsory Health Insurance, such as is now in practice in America and England.

Prior to my departure from Russia in August, if you desired medical attendance the procedure through which, legally, you must go in order to obtain this much desired help was as follows: First you took a trip to the nearest registration bureau, which is usually located in an apothecary shop. There is always a long queue waiting and you stand for hours in the street, no matter what the weather, for an opportunity to present your claims. It finally comes, and you depart in the hope that sometime you will get relief. The physician who is assigned to your district usually appears in about three days, but not always. He is a much overworked man, largely because of the increased illness resulting from semi-starvation. The doctor calls. His visit is apt to be cursory and he finally departs leaving you with a prescription. Then the same routine must be followed again in order to obtain your medicine; the long line is still in front of the apothecary shop, and when finally you reach the counter it is more than probable that the drugs which have been prescribed are not to be had and one must be contented with substitutes.

If the patient must go to the hospital the same experience is yours. You register after a long wait, and maybe days or weeks later the ambulance, or some other conveyance, calls to take your dearest one to a place, damp, cold and foodless. In June of this year the hospitals of Moscow were refusing patients unless they could bring their own food.

On the other hand, there is a brighter side to the picture. The speculator, the communist and the bandit with money can get what he wants by more direct methods. Apparently the communist system broke down, because now physicians are allowed to work in private practice after giving a portion of their time to the Soviet under the communist system.

Thus you can see there are more rules and regulations in Russia, on paper, than in any other country in the world, and very few of them are actually lived up to. The consequence is that if you are wise—and have money—government regulations mean little. No one with roubles follows the government routine. If you want to procure a suit of clothes in Moscow, first you apply. A full suit of clothes for a man costs about one and a half million roubles, and a woman's suit about two million roubles. This sounds pretty big, but the day I left Moscow five million roubles equaled about a hundred dollars. I was a billionaire in Russia, and I left Russia in a pair of old cavalry trousers and no socks. Those, of course, are prices charged by the speculators and are, therefore, illegal. Practically there are no clothes in Russia to be obtained legally, except by the commissars and a few of their friends.

The surgeon in charge of the barracks, where I was an inmate, was a very hard-working, able man. The operations were confined largely to patients suffering from hernia, appendicitis, and gun-shot wounds in bandits. Scarcely ever was a clean operation carried out without infection, except in isolated cases where the liberal use of bribe money obtained better results on the part of the attendants. In connection with the operating room there was only one out of five sterilizers in order when I was there. Consequently the field of work

was distinctly limited, especially in view of the fact that the chief surgeon had no assistant. There were a few nurses who had lost their enthusiasm and morale. One of the chief assistants was an ex-cavalry officer from Wrangle's Army, himself a prisoner.

At times there was no water in the operating room, and such as could be obtained was poured out of a pitcher to "scrub up." Many times there was no soap. I never saw but one or two towels in the operating room. The field of operation was never covered with sterile cloths, and yet all of the infections apparently occurred after the patients reached the wards, where it was simply impossible to carry out any degree of sterility in dressing wounds.

Many men died in the ward. They never received any helpful attention. Never once did I see a laboratory diagnosis attempted. In fact, there was no laboratory. If there was strychnine in the hospital I never saw it, and I do not believe there was any. On rare occasions camphor was used as a stimulant, but the supply was small. On one occasion I did see an infusion of normal salt solution. But the deaths in the ward were harrowing because of the lack of opiates and anodynes, so relief from pain was almost impossible. Men died like sheep, with no more self-consciousness than an animal would have. In fact, animals in America are better treated than men in Soviet Russian hospitals and in prisons.

Those who survived likewise manifested those attributes of animal life, such as we conceive of being attributes of wild beasts in the forests. No man died but what the food underneath his pillow was immediately stolen by those who survived him. I have seen fights in the wards among those who would profit by the loss of one of their own comrades. I saw a father and son fight over a scrap of food just prior to the former's death. And this is the condition of things which has brought Russia to a point where world communism would bring all of us, calling it a humanitarian movement. Can you conceive of the terrible mess in which Russia now lives? This hospital has the reputation in Moscow of being the best run and most efficiently conducted prison hospital in all Russia.

I do not blame those physicians who were attending the patients in Balnitza. There were seven of them for five hundred and fifty patients, one of whom was supposed each day to serve the full twenty-four hours. Half of them were women. The only Communist in the crowd was a Russian Jewess who acted as Chief of Staff. This woman was about thirty-five years of age, with bobbed hair and rather attractive features; much more presentable than her superior, Feinberg. As Chief of Staff she had authority over all the prison inmates of the hospital and of the physicians who cared for them. As to her professional skill, it was most ordinary. She occasionally came into the ward, looked around and walked out. Some of the attending physicians were very lax in their attentions. In many instances the inmates saw the attending physician only twice a week, and even then many of the patients were missed.

In this country full of paper regulations, hospital records were naturally of dubious quality. As a rule the ward nurse kept these records, such as they were, but oftentimes she was susceptible to friendly advances. Occasionally a so-called Control Committee visited us for the ostensible purpose of seeing to it that the hospital was properly administered and the patients received attention. The real intention behind this was to weed out those who were well enough

capitalistic domination of Russia, and has also for its ultimate aim the making of Russia a provincial state under the actual if not nominal control of Germany.

Do not talk to me of humanitarianism in murder, altruism in thievery, or liberalism in oligarchy. These are as distant from each other as the east from the west. Socialism is not liberalism or progress. It is the rankest kind of reactionism, and do not forget in the system which has been used so beautifully and so precisely for the destruction of Russia and for its subjugation at the hands of the German Jewish bankers; there is not one political principle, there is not one sociological fact which was not employed by those who were in control of the French Revolution, and who had exactly the same object in mind—*domination*.

I believe this program has achieved its fruition. One can scarcely open a current newspaper or magazine without seeing evidence of German industrial control gaining ascendancy in Soviet Russia. You have before you worked out a program which has produced in Russia a vacuity of brains and ability, left behind unlimited resources, unlimited unskilled labor, and a political condition which can yield nothing but eventual control from external influences. "Nature abhors a vacuum," it is said. The technical numbers necessary for the development of Russia's resources will flow naturally from that point where there is a surplus.

The picture stands before you. Destruction as called for in the doctrines of Carl Marx as a prelude to reconstruction, that reconstruction to take place under certain conditions and certain influences, each fact predestined by the course of events promoted and encouraged by Entente Governments. This time and age is not a healthful one for kings. Political domination by single men or groups of men without the aid of capitalism is a bygone phase of our civilization, but having survived the troublesome period of political domination through autocracy, we have yet to regulate the industrial domination of capitalism. And this is the secret behind the curtain of Central European International Politics, and it is by this that we should judge current events. If, therefore, we find that the condition of Russia is such as to make us believe it will eventually be dominated as a German province we have but one conclusion left, and it is that the great interlocking banking group of Germany, that group which stabilized the political changes of Germany from autocracy to a nominal Republicanism, is the group to which we must look for responsibility for the chaos and destruction which they have achieved through Bolshevism as a camouflage. And these men by no means are working alone. They have their representatives working in, and their co-ordinating individuals influencing, every civilized government on the face of the earth.

The dangerous element in the so-called radical movement is not the alien propagandist, the cart-tail orator. His work is only too open. The dangerous element is the directing force which has its center in Berlin and which is composed of those men who, through financial success, have achieved industrial and financial domination of the Central Empires.

The dominant note at the present time in our lack of relations with Soviet Russia is the question as to whether we shall establish with it trade relations, and I desire to most emphatically register my protest against any such procedure. England has opened the way,

and to what extent has it profited her? Nothing. She is in the position of one who has consented to enter into relations with criminals for the sake of personal selfish benefit, and also because of pressure exerted on her by the representatives in England of the same group to which I have alluded. We must under no circumstances encourage any such adventure for possible commercial reasons.

On the other hand, every effort is being made to entice this government into the most restricted talking relationship which shall act in its turn as an entering wedge to larger negotiations. Here, apparently is the line of thought: "We cannot get the United States to recognize us as a *de facto* government. Nor can we tempt them to recognize even a trade agreement, therefore we will get them, if possible, to alleviate our hunger." Thereby starting a train of events which in their logical conclusion must lead to relationships of some kind.

It is therefore with some misgiving that I have heard the stories of famine which have come from Russia in the past few months. There is famine in Central Russia—dire famine, but that exists largely because of lack of transportation facilities. In the relief of it from outside sources the problems to be solved are as great or greater than as if the resources which they have, were put to suitable use. But I would not now discourage anything which this great American republic can do to alleviate the sufferings in Central Russia. I believe that we should do all that we can, and more, not only because of the lives which undoubtedly will be saved but on account of the fact that these people are looking to us as the last hope that they have in the world, and we should not fail them.

And so I say to you, help in every way that you can, but see to it that in your help you will utilize those channels which are above suspicion in their attitude toward Soviet Russia and the camouflaged destructive principles which it represents. In looking over this field I feel certain that there is only one organization which is to be trusted with American relief, and with American money, and this is the American Relief Commission of which the head is Mr. Hoover. In almost every instance, as evidenced by the present position of the Joint Distribution Committee, whose affairs are being administered by the communists in Moscow, and the Nansen Fund, whose distribution was largely accomplished through German communists, these organizations are tinged and infiltrated with friendship for a system with which we must have nothing to do.

Mr. Hoover's organization is not only honest and efficient, but of all things it is what none others are, non-sectarian from a religious or racial standpoint.

What is to be the end of this political morass of Russia? I do not know. The best of the Russians with whom I have talked and the most intelligent, are universally of the belief that outside influence only coalesces the national Russian spirit and provides suitable excuse for the present regime to sit still tighter in the saddle. I feel that they must work out their own salvation and that no armed intervention from outside sources will do anything but damage and add to their woe.

On the other hand, shall we, a free and enlightened people, knowing full well and with a hyper-intelligence, viewing the trend of events—shall we make no effort to stem an influence which eventually will engulf all civilized countries, I believe not. Russia will have to care for herself in a military sense and in a political sense, but our

they are safe and often give the clearest information. When they fail, surgery is the next result. As to the composition of the enema, soap and water with turpentine, castor oil, glycerine, magnesium sulphate, and various similar combinations delivered high; the patient on the side and hips elevated. Many times a case prepared for operation has been relieved and the operation rendered unnecessary by a properly administered enema; best given with funnel and rubber rectal tube. To put the question to the test by giving purgatives by mouth, and there seems to be a strong temptation to do so, a temptation that is too frequently surrendered to, is absolutely contraindicated as it will surely count disaster—being an extremely dangerous procedure, and a most grave complication of surgical measures. They increase peristalsis thereby exciting fatal turmoil, increase vomiting and exhaustion. The violent peristalsis excited, aggravate the effects of an obstruction, fill and distend the intestine above the construction with fluid and gas, lastly they are a source of peril when the operation relieves the obstruction.

Enemas are safe; if they fail, the fluid is on the right side of the obstruction. Test is only satisfactory after two enemas without anesthesia, and possibly one during anesthesia.

Pituitrin and Eserin salicylate both increase and stimulate intestinal contractions, and in the presence of mechanical obstruction are contra indicated although they may be of great value in the prevention of some of the adynamic or paralytic type; of questionable value when that condition prevails, but certainly helpful after intestinal obstruction has been relieved. It is to be remembered that Eserin is uncertain and at times depressant to the circulation. Its use should be guarded.

In about one-half the cases, by systematic investigation, cause can be found to explain the obstruction. A careful elicited history secured from the relatives, attendants, as well as the patient, is invaluable. Every effort should be made to secure all possible clinical data and a thorough physical examination is next in order.

Needless to say in every suspected case, careful investigation should be made of the hernia openings to exclude the possibility of strangulated hernia and it should be specially borne in mind that a small femoral hernia in a fat woman may be very easily overlooked. At the same time digital examination of the rectum should be done to exclude the possibility of obstruction due to carcinoma or other strictures, and in an effort to palpate a descending intussusception or impacted feces. In like manner a vaginal examination should be made to rule out pelvic abscess, extensive pelvic inflammation, or uterine tumor compressing the bowel.

In intestinal obstruction the speedy onset of abdominal distention is to be feared. It unmeasurably increases the gravity of the case. Its presence diminishes the chances of relief by enemata. The late Grieg Smith said, "the tightly distended coils of intestine obstruct one another." Next it is difficult or impossible after distension has supervened to localize the seat of obstruction, even an intussusception becomes obscured as well as a tumor or mass in region of sigmoid or cecum. The chances for a successful operation are greater when the abdomen is slack, and when the operator has a clear objective such as an easily felt tumor. During the operative procedure, distension complicates matters materially, and often necessitates the serious addition to the operation, viz.: incision and emptying of the distended coils.

Again distention by overstitching the muscular walls, causes a temporary paralysis with the result that after the cause of the obstruction has been relieved by operation, an adequate passage of flatus and fecus does not take place; vomiting continues, and the patient dies. These conditions call for temporary openings in the cecum or small intestine, as well as relief of obstruction. Very frequently we are misled by what we feel, a tumor diagnosed as intussusception has turned out to be a mass of acutely inflamed and suppurating mesenteric glands. However, though we guess wrong as to the nature of the tumor, the knowledge of its presence affords a clear objective at which to aim.

Vomiting increases the operative risk. In the first place, early severe and continuous vomiting, no matter what the character of the vomitus prohibits procrastination. Its time of occurrence and character helps somewhat in locating the seat of the obstruction. It is most exhausting and increases thirst. It affords in the second place a distinct addition to the dangers of the anesthetic. Some patients have undoubtedly died because during unconsciousness, vomit entered the air passages—practically drowned. Washing out the stomach before operation has been advised to eliminate this danger, and while it is indicated and advised the vomiting is profuse and offensive. It must not be forgotten that stomach washing under these circumstances is not without its own dangers of exhaustion and collapse. We stand between Scylla and Charybdis. Of two evils chose the lesser. It is also to be noted that when the anesthetist is skillful and does not push the anesthetic too far and takes care to keep the head low and well on the side, there is less danger.

Pain has a bearing on the surgical management. It is not always indicative of intestinal obstruction and it is deceptive, but its location and character sometimes affords some slight clue to the sight of the obstruction. It has one evil result. It often leads to the administration of opium or morphine. When a human being is in agony, it seems hard to withhold relief, but the narcotic is sure to accelerate the onset of intestinal paralysis, and gaseous distension. The pain ought to be relieved by the division of the band, withdrawal of the intussusception or evacuation of the abscess. We believe a hypo for relief of acute pain in abdomen should never be given before a differential diagnosis has been made, and the cause ascertained. If pain must be relieved by morphine, and I believe at times it is indicated, being used sparingly $1/6$ - $1/4$ of M. S. guarded by atropin $1/150$ watching that patient does not become narcotized. In my experience while it relieves pain, it rarely masks tenderness or tension, and it does reduce shock and lessen nausea and vomiting temporarily. It can only be a temporary expedient awaiting the surgeon's decision or preparation to do something.

The presence of peritonitis causes the most absolute intestinal immobility and is a grave complication. It limits the extent of the operation and makes the prognosis more grave.

It is fortunate indeed when we are able to make a definite diagnosis early in the disease. Then the laparotomy may be performed under the most favorable conditions before intestinal distension and paralysis and of course long before the peritoneum is inflamed and cracked or the mucous membrane ulcerates or before gangrene has supervened. Under such conditions, the operative indications are easily met, the patient is able to withstand a radical procedure and the prognosis becomes favorable.

All cases of Acute Intestinal Obstruction do not need an opera-

cecum. In case of gangrene, he does not resect, but invaginates the gangrenous area, as an intussusception and sutures the gut forming an intussusception. The gangrenous parts slough off and integrity and continuity of the canal is restored. Immediate drainage of the distended coils is advocated again and again. The danger from the septic contents of such coil is in direct proportion to interference with circulation of these coils and changes in the mucous membrane; without circulatory change and without damage to the mucous membrane, the toxic products are not absorbed. It has been shown by experiments that these toxic products produced in the lumen of obstructed bowel are not absorbed by the normal mucous membrane of the distal segment as formally thought and that the fatalities after operation were rather due to operative damage to the mucosa at some point; involution or strangulation—operative relief of the obstruction to the blood or lymph vessels permit a more rapid absorption of the toxic loop content from already damaged mucosa. Or the patient has already had absorbed a lethal dose or near lethal dose before operation, in which case operation is merely an incident in hastening the fatal condition from its general effects.

In my humble opinion the high enterostomy is the key to the situation, using a catheter after the manner of Kader or Senn, or the improved method of Horsley described in the current annals of surgery, which is really patterned on the gastrostomy of Witzel.

Next to enterostomy and resection, is the question of an anastomosis of intestine to the colon, as a rapid expedient without removing bowel, leaving further operative detail till later date.

We have covered in a general way many of the points involved in the obscure case. A few remarks might be made upon the operative procedure in special forms of obstruction.

Symptomatic obstruction,—Adynamic or Paralytic; the commonest form accompanying peritonitis consequent on infection; also in case of injury to or disease of abdominal viscera. It may follow severe ileus—passage of biliary and renal calculi—tortion of testis—pedicle or ovarian cyst or floating kidney—acute pancreatitis. Of this form operation is sometimes indicated in case of peritoneal infection. Evacuation of the contents of the bowel may be desirable either to facilitate manipulation or for replacement of escaped bowel. For these a temporary enterostomy suffices. In other conditions more serious as described, above temporary enterostomy is indicated. Under this head, we include the associate condition of torsion of the omentum within abdominal cavity or in any hernial sac. It is very rare. Dr. Erdman reported one case in his thirty years' experience. It may stimulate a volvulus. Operation includes removal of twisted portion of the omentum. In six cases collected by Corner, the tumor was in the right half of abdomen indicating the most suitable sight of incision to operate. Obstruction due to arterial embolism or venous thrombosis is comparatively rare, and difficult of diagnosis. Only two cases in ten years' experience by Ross out of 30,000 hospital admissions. The causes in case of arterial stoppage either emboli plugging or thrombotic obliteration. In case of venous stoppage either ascending following inflammation about pelvis, appendix or anus, and descending following pyelonephritis, operation on gas, bladder ducts, duodenum or pancreas. The symptoms produced by it necessitate an early abdominal exploration provided the general condition of the patient warrants it. The ideal procedure is enterectomy—remove enough to assure the parts to

be united receive a direct blood supply. In five successful operations length removed varied from 3 and one-half inches to forty-eight inches. In small intestine axial union is recommended and colon lateral anastomosis.

If the patient's condition contra indicates resection, draw gut out of the abdomen, fasten to the edges of the wound. Introduce a Paul's tube and perform resection later, or resect and with a tube in each end suture the ends into the wound. In one case, reported as recovering nothing was done except exploration, spontaneous cure resulted. Mortality is as high as 81 per cent.

An intussusception of any form or variety demands an abdominal section at earliest possible moment after its detection. Treatment by inflation or injection is most untrustworthy and generally worthless. It might be tried carefully while awaiting preparation for operation, as it might decrease the amount of intussusception. Most suitable incision in sub umbilical and through the sheath of the rectus. Examination may have disclosed apex of intussusception, if so, we can seek it at once. If not evident then seek the cecum and if it is not in the right iliac fossa, trace colon from below up. Having discovered the apex, try to reduce the intussusception, being careful in manipulations. Avoid production of rents and if they occur suture immediately. If there is much difficulty get more room and see as well as feel. Expose as little of intestine as possible. Moynigan recommends after reduction placing few sutures and fix cecum in position. Rapidity of operation is to be desired, particularly in children. If reduction is impossible, or if followed by hopeless damage to bowel wall, or if gangrene is present, enterostomy or enterectomy must be considered. The former is undesirable and is only to be resorted to in case the condition of the patient forbids any by the most rapid procedure. The Technic we have spoken of before—a lateral and anastomosis has been suggested, but has its disadvantages. If time permits, enterectomy is preferable. Axial union should be performed in case of small intestine. Lateral union with closure of free ends where small and large intestine are concerned. The operation described by Barker seems preferable. The principle of subacute or chronic intussusception adhesion takes place at the neck and intussusception perishes, and is passed by anus. The result obtained resembles Maunsell's method of enterectomy. Look out for complications, namely, intestinal polyp, lipomata, fibromata, adenomata. Meckel's diverticulum. In these cases remove the tumor. Von Eiselberg reported nine in twelve cases. Of sixty-five cases, twenty-three died, 35.5 per cent; nine enterostomy or resection only one recovery; celiotomy and reduction 26.7 per cent. Wallac 27 per cent excluding cases where resection was reported to.

Volvulus.

If the signs indicate cecal or sigmoid volvulus, place the incision over the outer portion of either rectus, in other cases para median incision is better.

Volvulus of the small intestine—treatment consists in untwisting from right to left. Make an attempt to fix the upper and lower extremity of the mesentery to render a second torsion impracticable.

Cecal volvulus—a preliminary colotomy facilitates untwisting from left to right. Fix cecum after replacing it.

Sigmoid volvulus—Evacuate the coils before attempting to untwist the loop. Prevent recurrence by:

- 1—Fixation of loop
- 2—Lateral anastomosis at base of the loop
- 3—Removal of entire loop.

Each has proven unsatisfactory.

In cases where general condition is bad, and local condition serious, resection of loop with enterostomy, and without end anastomosis. Mortality is high especially in small intestine, 65.5 per cent. Cecal volvulus 52.5 per cent.

OBSTRUCTION DUE TO INTRA PERITONEAL ADHESIONS.

The local of the incision is frequently prompted by history or local signs. In other cases the para median subumbilical incision is satisfactory. Explore first the regions suggested by history and signs. If search is fruitless, pelva should be investigated, in attempt to locate collapsed small intestine and so on. The obstruction discovered, necessity directs the procedure.

Cord adhesions are divided between ligatures. Broad adhesions are carefully separated and ligated. Care being taken not to injure the bowel wall. Always cover resulting raw surface with omental graft or by peritoneal infolding. Enterotomy may be required or even enterectomy, or enterostomy. Multiple adhesions suggest lateral entero anastomosis.

Tardy interferences in these cases and the degree of toxemia has carried increased mortality. Mortality has been put as high as 62.7 per cent.

Adherent vermiform appendix is not uncommon as a cause of obstruction. The restricting appendix has usually undergone a process of obliteration.

The operative treatment includes the division of the band and removal of the appendix, by the ordinary method.

In like manner, adherent Meckels diverticulum has produced obstruction. The operative procedure here aims at detection of Meckels diverticulum, usually within three inches of ileo-cecal valve. Careful separation of distal extremity and proper removal from its proximal attachment to the intestine following a technique similar to appendicectomy. The Fallopian tubes or a long pedicle ovarian cyst may cause obstruction, and should be thought of. The surgical pathology discovered will suggest the surgical procedure along the lines already outlined.

A rare form of acute obstruction occurring usually as an acute abdomen, and rarely diagnosed before operation, is obstruction due to strangulation, in abnormal openings, in mesentery, in omentum, and broad ligaments. These cases are usually fatal, being unrecognized and coming to operation late.

Herniae into retro peritoneal pouches require detection, reduction, and at times fixation of part of reduced gut. Reduction may necessitate enterotomy, and also incision of constriction at neck of sac. The herniae of this series when strangulated are only to be diagnosed by abdominal exploration, the indications for operation being symptoms of intestinal obstruction of unknown cause.

Congenital stenosis producing acute obstruction are rare and all fatal. Acquired stenosis most frequently complicated by adhesions.

Circular stenosis may develop at sight of hernia, constriction of gut at neck of an intussusception, which has sloughed always or may follow an axial enterectomy. Ideal treatment is enterorrhaphy if one half of the lumen consists. Lateral anastomosis, enterectomy or enterostomy may be decided upon.

Biliary or intestinal caculi offer no difficulties themselves when they become impacted. Prognosis depends on the extent of pathology subsequent to obstruction. These foreign bodies may become lodged and arrested by a stenosis which was caused by local adhesions or pathology. We may pass stone on into colon if it can be dislodged or incise through healthy bowel and remove it.

Fecal impaction gives rise to complete intestinal obstruction, but it rarely calls for surgical measures.

Chronic intestinal obstruction may at any moment become acute. When the cause has been discovered, it may be easy to decide what to do, but some of the problems which arise are full of embarrassment. The temporary relief by colostomy is the usual procedure. We may make this the first of the second or third stage of Milkulicz operation. A simple colotomy temporary in character followed at a later date by satisfactory use of the rubber tube in growths of the pelvic colon as described by Balfour has given us great confidence in results of these cases.

The after treatment is most important. To meet with success it must be concise and conscientious. The majority of cases are almost extremis when they are operated upon and need judicious management before and after operation. Such management is a potent factor in lowering the mortality. Crile says, "In our clinic the high mortality attending the critical situation presented by acute intestinal obstruction, did not begin to fall until we became cognizant of the damage resulting from auto intoxication *per se*."

With the recognition that this danger by so much lessened the patient's chance for recovery, we employ the shortest possible operation, avoided lipid solvent anaesthetics, employed hot packs, and Alonzo Clark opium treatment after operation with sodium bicarbonate and glucose per rectum. A study of 219 operations for intestinal obstruction shows a falling mortality rate beginning with the adoption of these methods."

The main points in the after care comprise external warmth, stomach lavage, early and often for persistent vomiting and distention, plenty of fluids by rectum intermittently, or continuously by Murphy or Harris drip. One and a half pints every two hours using saline or tap water with glucose five per cent sodium bicarbonate two per cent.

Hypodermoclysis, continuous over periods of hours or days if necessary by Kanavals improved method. In some severe cases even intravenous glucose solutions to which we may add adrenalin chloride 1-1000.

Rest is imperative, peristalsis should be gently stimulated as case improves by enemta, pituitrin, eserine, salicylate, etc., and in due time by divided doses of calomel—salts. Diet at first liquid, and thereafter carefully chosen nutritions.

Conclusions, every case of suspected acute intestinal obstruction, demands close and continuous observation, and management by the medical attendant, until a definite diagnosis has been arrived at and definite treatment instituted. The discouraging results in these cases

may be altered, and the mortality lowered by:

1. Early recognition, making possible immediate operation.
2. Clear plans for the management of the case from the beginning.
3. In the more severe cases, limitations of the surgical procedure to an enterostomy to relieve the urgent and fatal symptom of toxemia.
4. Rapid operation with little handling.
5. Proper selection and administration of the anesthetic with care as to the supporting treatment.
6. Judicious post operation management.

Standards in the Medical Profession; How Created and How Maintained

HENRY C. WRIGHT, ESQ.

RECORDED standards of conduct and procedure for the guidance of members of the medical profession have existed for quite some time. Hammurabi, King of the First Dynasty of Babylon about 2250 B. C., published an edict governing the conduct and charges of surgeons, wherein he provided that if a surgeon operated on a slave who died as a result of the operation, the surgeon should give the master a slave in his place; or if as a result of the operation the slave lost an eye, the surgeon should give to the owner of the slave one-half the amount of the value of the slave. There is no record of the effect upon surgical practice of this edict of the King, whether or not it tended to reduce the number and frequency of surgical operations, particularly upon slaves. I feel quite sure that if somewhat similar regulations were in force today, it would tend to make our surgeons hesitant and timid. When these and similar restrictions dropped out of practice is not recorded.

So far as the regulation of conduct and practice of physicians and surgeons in the United States is concerned, the "Code of Medical Ethics" of 1847, was the first well recognized formulation of principles. These, with minor modifications, are now known as "The Principles of Medical Ethics," adopted by the American Medical Association. You are all familiar with their provisions. They set a high standard for medical conduct, but make no provision for the doctor who seems not to be impressed with the standards therein set forth. In such broad terms are these principles set forth that they probably will require but minor revision for some generations to come. These principles clearly set forth that a physician should be a good man as

(Editorial Note.—Mr. Wright had administrative charge of the municipal hospitals of the Department of Public Charities under Mayor Mitchel. For about four years he has been a Trustee of Bellevue and Allied Hospitals. He is now Director of the Hospital and Institutional Bureau of Consultation.)

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well as a good practitioner; interested in general welfare as well as the welfare of the individual. But it is a very difficult thing to define what a good man is, whether he be a physician or engaged in commercial pursuits. The conception of a good man varies from time to time. So, "The Principles of Medical Ethics" must be interpreted from time to time, just as the New Testament, to have any effect upon modern civilization, must be read in the terms of modern problems.

How are these Principles to be interpreted, and how are the interpretations, when made, to be given binding force? These latter questions are very hard to answer. It is easier to answer these questions pertaining to the conduct of physicians in hospitals than in field practice. Certain standards of procedure have become recognized as necessary in diagnosing and treatment. For instance, an internist today who should depend upon the gross appearance of the tongue, without an accompanying use of the thermometer, pulse and respiration counts, and under certain circumstances blood count, blood pressure and certain other analyses, would not be tolerated in good hospital practice. The surgeon, likewise, before performing some operations, will ask for certain determinations, and his decision as to whether or not to operate will be governed largely by the laboratory findings. By common consent these methods have become standard practice in hospitals, we may say interpretations of the Principles of Medical Ethics. But, having secured a general consensus of opinion as to these methods and procedures, to what extent is a physician in a hospital to be called to account if he does not follow these procedures? If he should be called to account, then by whom? I am inclined to believe that practically all will agree that procedures which have become thoroughly tested and recognized, and are considered of value, should be adopted and used by each member of the staff of a hospital. There are some new procedures or technique which may be good but not yet thoroughly recognized, which may not be included within such a statement. But what should be done about a member of the staff who, through ignorance, indifference, carelessness, or haste, does not use the procedures and methods that are recognized? Should his attention be called to his omissions, and if so, by whom and in what manner?

The maintenance of the recognized standards of medical procedure in hospitals is one of the real problems. How can the medical service be so organized and operated that the recognized standard will be maintained? Personally, I have not great faith in a medical organization that rotates from period to period without some responsible head. I have seen so many instances under such organization where one or more members of the staff would not maintain standards of procedure that were well recognized, and yet such members were not called to account by the medical board, nor were their derelictions reported to the managing board of the hospital. Again, even though there be a medical organization in a hospital that has both good intentions and moral courage to reveal and attack a fault, yet such a medical organization is unlikely to have time or clerical assistance that enables them to ascertain what is actually taking place in the hospital.

Let us suppose that in one hospital not only too many Cesarean operations are performed, but more than fifty per cent of the patients die on whom the operation is performed. Let us further suppose

that in the maternity service of this hospital considered as a whole, there are twice as many deaths of mothers and babies as in other hospitals operating in a like district. Such a condition would undoubtedly call for an inquiry. Let us suppose that an inquiry reveals the fact that the obstetrician in the hospital which has the many Cesarean operations and the high death rate therefrom, considered that the chief relief from eclampsia was a Cesarean operation, whereas in other hospitals various means were used to reduce eclampsia and to induce labor. The practice in the two hospitals is different, but the net result is that the death rate in one is higher than in the other. The question is what should be done about such a situation, and who should do it?

If it be difficult to create and maintain standards in a hospital that is usually governed by a lay board whose every motive is to maintain high standards, how difficult must it be to create and maintain standards in field work, where the individual practitioner has no one to whom he is responsible or to whom he reports. The hospital as a corporation or organization, usually of important individuals, wishes to create and maintain a high standard. There is both an analyzing and a compelling force in such an organization. But this force is almost entirely absent in connection with the field practice of medicine. Various methods have from time to time been suggested as means of checking up field practitioners. Some have suggested re-licensing time by time. Others have suggested that medical associations have membership based on certain defined standards, and that there be an effort to determine if such standards are met by the membership; and when they are not met that there be appropriate action, either through the form of reprimand or expulsion. The American College of Surgeons is a move somewhat in that direction. It lays down certain standards for membership. These standards are supposed to insure that each surgeon becoming a member is reasonably competent and trustworthy. I have no doubt that this standard is as high as it can well be placed under existing conditions. The College, however, in its standard makes no provision for ascertaining if the surgeon is living up to the standard which he met in securing membership. There is no procedure whereby the College may know when a surgeon ceases to be competent either in his technique or surgical judgment. Regardless of its shortcomings, the existence of the American College of Surgeons, with its conditions of membership, is a very definite advance in the standards of medical practice, and with the organization established, it may be possible time by time to add to the standards.

Can there be standards created for the physician that would in some way correspond to the standards established by the American College of Surgeons? The problem is so different that it certainly cannot be met in the simple way that it has been met by the American College of Surgeons. Surgical operations required by residents of small towns or rural districts, can in most cases be postponed until a competent surgeon can be secured from some larger center. Not so with the ordinary sickness which is attended by a physician. Usually that must be attended in the home or in a nearby small hospital. Already small towns and country districts are finding it difficult to induce physicians to establish in their midst. To attempt to make such physicians conform to certain standards might still more limit the number that would serve in the more sparsely settled rural dis-

tricts. The problem is different in larger cities where there are many physicians, and it is possible for patients to choose as between physicians. Here standards might be set up and maintained. The problem, however, is a very complex and difficult one. From the standpoint of a layman, it seems to me that every effort should be made not only to raise, but to actually maintain the standards in hospitals, where it is possible to do so, through the form of organization, and control; then, through some organized effort of the medical profession, to attempt to educate the field practitioner to adopt and maintain the standards set in hospitals. I feel that there is much that could be done along these lines. Personally, I am strongly in favor of a medical organization for a hospital which has one or a few responsible chiefs in charge of services. Under such an organization, fewer men are on the medical staff. Thus, fewer field men have an opportunity for hospital practice. Such a system markedly improves the character of service in a hospital. At the same time it restricts the opportunities of service for many practitioners. How can this handicap be overcome and the higher standard of practice developed in the hospital be transmitted to the field practitioner? This problem has not been satisfactorily worked out, and it is one of marked importance. In one hospital with which I am acquainted, one of the attending physicians at frequent intervals invites to the hospital all physicians who have sent patients to the hospital; makes a round of the hospital, and lectures to them on various diagnostic and clinical subjects, illustrating by the patients in the hospital. In another hospital, the three chiefs of the services united in inviting all practitioners within the field of the hospital to come to the hospital for a clinic, at which cases were discussed and modern methods demonstrated. I feel strongly that the standards of hospital practice not only should be maintained, but should be heightened, and I do not believe this can be done except that the hospital be served with a comparatively small, well supervised staff. On the other hand, it is equally important that the field practitioner should in some way have transmitted to him the knowledge that is gained by the attendings in the hospital. The hospital standards and methods and practices should become his. I see no other way of bringing this about than that it be done through the coöperation of medical men. The American College of Surgeons in attempting to standardize hospitals, attempts to secure good records and periodic conferences of the medical staff. These are commendable efforts, but they are efforts on the part of an organization composed of surgeons, and are made applicable to physicians,—a situation which may create some friction. Moreover, these requirements are of a very elementary character. The standards of procedure and practice in a hospital should be very much higher than suggested by the American College of Surgeons. It is questionable whether standards can be raised to the height they should be raised unless it be through a combined effort of both physicians and surgeons. How such an effort could be brought about I am not now in a position to suggest; I merely indicate the problem as viewed by a layman. This one thing seems fairly obvious to a layman,—that physicians and surgeons do not materially differ in motive and moral fiber from the average layman. There is no particular reason why they should be expected to follow routine rules and regulations any more closely than does a layman. In almost all walks of life, rules and regulations, to be obeyed, must be enforced by some form of punishment.

I do not believe that standards created and defined by the medical profession will gain as rapid acceptance as they should unless there be some way of punishing those who do not accept or use these standards. From my experience with members of hospital staffs, I am fully convinced this is true as applied to hospitals. A certain proportion of the members connected with hospitals need little or no stimulus to maintain high standards. Others, however, need the constant stimulus of reminders, suggestions, interviews, threats, with the possibility of dismissal.

It seems to me that the medical profession should devise some machinery through which a practitioner who is doing illegal things could be brought to account and debarred from membership in medical associations. Such action is taken by the legal profession to protect its standards. I see no reason why it should not be done by the medical profession. But the harm that such practitioners do, I imagine, is vastly less than the harm done by well intentioned but ignorant or careless practitioners. Ignorance and carelessness on the part of practitioners is the direct or indirect cause of many deaths. No publication of standards with punishments will meet such a problem. In so far as it can be solved, a solution must be attempted along other lines, by systematically endeavoring to educate the practitioner. It probably will be necessary to do this largely through the hospitals and clinics into which the practitioner will from time to time be called; and through some systematic effort of medical organizations to raise and maintain standards. The process is a slow one, but nevertheless probably the only feasible one. Because it is slow, however, and tedious, is no reason why definite effort should not be put forward on the part of the medical profession to stimulate a more rapid recognition and adoption of accepted standards of practice. It is not particularly difficult to standardize treatments, and in the main to secure the adoption and carrying out of treatments. The chief difficulty lies in getting adopted and put into practice standardized procedures for diagnosis which will form a basis for a judgment as to surgical procedure or medical treatment. Diagnostic methods are not so easily catalogued and defined as are methods of treatment, and yet procedures well recognized in hospitals do not so generally govern in field practice. How can the field man be induced to use diagnostic methods which can be used in the field, and to recognize the point where it is advisable or necessary to send his patient to a hospital for fuller and more complete diagnosis? How can all field practitioners be brought into more intimate touch with hospitals? These are problems well worthy of discussion on the part of medical organizations.

How Shall We Deal With the Unworthy and Unfit in the Medical Profession?

DR. WILLIAM E. BUTLER

New York City

MR. WRIGHT brought up the problem which I intended to bring up this afternoon. We have in the profession some men who are unfit and many men who are unworthy. That is something which is not alone true with the medical profession but with any profession. It is common to human nature so it is common to societies and professions. Individuals have their faults so societies have their faults.

I think of the medical profession as a fraternal problem. Mr. Wright has pretty well defined this problem—it means that we must define what the unfit and the unworthy mean—who we mean by the unfit? Those only who are not qualified to practice or those who have been admitted to the profession and have slipped by the wayside? Those who have gone out of the hospitals and do not have the facilities of keeping up to the times—do not have the advantages of close contact with the hospitals—men who have no opportunities about them to help them progress and have gone backward instead of forward? It is not only those men who should take up and discuss this afternoon but it is those men who disobey the law and ethics of the profession.

The public health law well defines these delinquencies which we are here this afternoon to discuss. It is in section 170 of the Public Health Law. The first thing to take up is that point of FRAUD and that word fraud covers the habitual drunkard, the drug eddict LARCENY is another thing which is required to have a license revoked for. Those are the thing we should discuss in conjunction with the practice of the general practitioner—the man who when admitted to college starts out with the highest hopes and the highest thoughts for the benefit of his fellow man. Those thoughts are carried out by the great bulk of the profession but there are, however, conditions which cause the doctor to slip by the wayside. Sometimes the man starting out meets with adversities and he is having a hard time to make ends meet. He is tempted to diverge from the straight and narrow path. Perhaps a girl comes in weeping and he is tempted to practice abortion. It is a great temptation for a man who needs practice and help. I don't know whether the drink habit is more or less since the eighteenth amendment. John Barlycorn is a great friend of the medical profession and I know I have seen a great deal of it. The lack of the old Scotch may mean that more narcotics are being used. We all know there are a great many in the profession subject to these faults.

Now, the statutes define what we shall do in regard to these men under certain conditions. The code of ethics which is our guide in this profession is very clear on this. The ethics, however, are not carried wholly out in the profession. Mr. Wright has brought up many points where he has noticed faults but what to do is the problem. This is the problem we have to solve.

The laws show what can be done. The statutes go on record providing for a certain set of disciplinary laws so that anybody may bring before the Board of Regents the question of a man slipping from the right path. The complainant is not necessarily a physician, he may be any ordinary layman. If the man claims that he has committed crime or has committed fraud in his practice of medicine this should be put before the Board of Regents for action. It doesn't have to come through a medical society. Now, you all know that very few cases are ever brought up before this Board of Regents—I don't believe there are over one or two cases a year if there are that. One reason is that we are a proud body of men and we hate to put a smudge on our profession and by bringing up this man or that man before the Board we feel we are lowering ourselves. Is that the right attitude? The question, of course, is difficult to understand and as we go along perhaps we can do something about it. The statutes say what we can do and perhaps we will all try harder to do what should be done.

We have societies for the purpose of checking up on the profession. Do we check up? Do the societies check up the questions and discuss them? Isn't it a rare thing that one of these cases is brought up before the medical society. For very few come as far as that. Through the medical standard of ethics and through the law we have a disciplinary treatment of this infirmity of the medical profession. Are we doing anything along those lines? Are we doing anything to cure? We have cases where we have heard that a physician was out of his head and yet he was continuing the practice of medicine. Isn't it, then, incumbent upon us to do something to alter such conditions? When we realize such conditions should we not do something about it to prevent him from carrying on the practice of medicine? We should do it for the uplift of the profession and for the safety of the medical profession and the public at large. It is duty not only to those about us but to ourselves. Are we doing anything to help the profession by keeping such under cover? There are those who are drunkards and we know it, should we or should we not bring such cases to the Board of Regents? When we have a man who has become a narcotic habitue isn't he very apt to prescribe that same narcotic for many of his patients? The physician who uses the needle himself is very apt to prescribe it for others. What are we going to do about it? Mr. Wright has stated that the problem is almost unsolvable and it is in a way, almost insolvable. You remember the saying of the Salvation Lass that "a man may be down but he is never out." It seems to me that perhaps we do have a remedy if we come back to the idea that we are a fraternity. Disciplinary methods seem almost useless but there are always some ways of reaching some of these men and the way we must reach them is through our medical societies. Mr. Wright has mentioned the law and the legal profession has the grievance committee and that is a great advent in the practice of law. If anything comes up in the law—if the man commits fraud, that is brought to the committee of the Bar Association. It is there thoroughly discussed and later the man is brought before them to present his side of the case and after he has presented his side of the case and the witnesses have been heard they go into secret session and thrash the matter out and arrive at a decision. That is not left to the Committee alone but as soon as they finish it is brought to the Appellate division and they decide finally on the case. Why can't we in the medical profession have similar standards as the law profes-

sion. Aren't we at fault, aren't we all at fault? We don't want to be a body of squealers. We know the trouble is in existence—isn't it our duty to help it as much as we can? When a man takes up the practice of medicine he takes up a duty to himself and the public and if he fails are we right in protecting him from the consequences of his delinquency? Shouldn't we, in other words, get to the base of it. There may be something in that man's history that we don't know about. Let us bring this up among ourselves. If we have trouble let us use the punch ourselves and see if we can't help that man up by our own efforts. Our body is the medical profession. Are we going to grow and cast off the bad or are we going to stand polluted? If we apply to the public and have the right kind of men on this committee which would be analogous to the grievance committee in law. It is our duty to have this kind of men, men with the milk of human kindness. I believe there are cases in our neighborhoods that need our help. They are sick—not only sick in body but sick in mind. We should help them. Now, why can't we help them? We have difficult cases to take care of. We don't need to remove them from the profession. We can help to restore them to the place from which they have slipped. If we find a case with a cancer of the breast we cut off the cancer; so when we find one of our profession with a fault which may be vital to himself and the profession, we must help to cut it out.

There is just one other thing that comes to my mind and that is the men who are admitted to the profession now, those who pass the examination and enter the practice of medicine. Many men can pass the examinations but haven't the real right to go out and take and treat cases. They are not high in education; they are not high in morals and we have put them in the profession. They are men who just cram for the examinations. That brings up the question of all medical examinations. I know the Board of Regents in their endeavor sometimes have difficulty in picking out the best men. Before they (these men) are allowed to enter colleges they are asked to give some account of themselves to the Board of Regents. I do not believe every man who can pass the examinations is fitted to practise medicine—he should pass a test of character. J. Pierrepont Morgan once said he would rather loan a man money on his character than on his note. The examiner cannot go into the details of all these large classes and we ought to have some information to pass on before. Why can't the society take the matter up and impress upon the Board of Examiners and our colleges the necessity of doing this? Instead of trying to rid the profession of undesirables, why not keep the undesirables out before they get in? The college must help. The Board cannot do this without the aid of the college.

We must be just to ourselves and our profession. So finally I would say let us as a body get together, have a committee appointed, and if cases of this kind come up bring them up (don't publish them) before the grievance committee. The grievance committee does not publish the name if it is brought up in law. That is not done. That man is brought before the committee, the case is taken up and if he has done nothing wrong the case is discussed and then dismissed and if he has done wrong it is brought up for decision. Are we to deteriorate or are we a strong body of men working together to bring to a high standard the medical profession and make all members better and if we do that we have established the cause and we must grow stronger and stronger.

Discussion.

Dr. H. Beeckman Delatour:

Chairman, Gentlemen:

The topics which Mr. Wright and Dr. Butler have presented are most important.

Dr. Butler's suggestion that the medical examiner be acquainted with the character of the man coming before him so that he might use that in reaching a decision as to fitness of the candidate to enter the practice of medicine sounds very well but the problem would be to put this into practice. As I understand the present method of State Medical Examination the entire opposite is the plan pursued. The examiner goes into the matter blindly. He knows the man by number simply—he does not know the applicant at all. Papers come to him with only a number. The papers are marked and the result, as far as the examiner is concerned, has no bearing whatever on the individual. It is a great big question I think whether the State would be willing to accept a plan whereby a man could be debarred from the practice of medicine notwithstanding the fact that he had passed an excellent examination in all branches. The determination of a man's fitness should be judged by his teachers who have had several years of personal contact with him. They should not certify him to the State Board if morally unfit to practice medicine.

I believe it would be difficult to establish the fact as suggested by Dr. Butler in reference to the use of alcoholics. We all know that in the medical profession habitual users of alcohol exist, but they are the minority, and it would be most difficult to present charges against these unless some grave error was directly due to intoxication.

Many men are brought before the boards of our Medical Societies on charges and frequently expelled. It is a very difficult problem to discipline a fellow practitioner and sometimes impossible to present evidence that will convict. I know of one man who has had the reputation of being a professional abortionist for years, the law has been after him, he has been tried at least twice to my knowledge and has never been convicted. It is a most difficult thing to place the evidence before a jury in such a case and secure conviction. Now if that is so it must be eminently more difficult in a society to accomplish such results.

It is more difficult to handle the insane. Is there anything more difficult than to have a person declared insane? I think every man in this room has been at some time in a position where it has been his unpleasant duty to appear against a person on the question of sanity. It is a most difficult problem to convince the average judge of the insanity of any individual.

In Mr. Wright's paper there are many things that have been in our minds for years. The only trouble I find with Mr. Wright's paper is that he does not answer the questions.

The question of a hospital staff—whether it should be small or large, whether one responsible head or more is a most important question and is being raised more and more. Mr. Wright knows how I feel on the matter for we have served on the same board in the organization of the staff. I feel very strongly that the most efficient staff is one that has a single responsible head. One person over each department to whom the Board of Directors may look for the carrying out of the very best service to the patients. One head to plan out and to put into operation a plan of procedure in the department. One man to govern and gain the absolute faithfulness of the various men in the service. But it is a very difficult thing to establish and after being established it is a very difficult thing to maintain. We did establish it but I think it is no longer maintained to the extent which it was originally developed. The hospital will never give its best service when it has a very large staff because there are so many differences in the methods of treatment that it causes disorganization among the work of the attendants. This makes it difficult for a routine to be followed.

We have organized a staff at the Norwegian Hospital which for the time is working very nicely and I think is appreciated very much. We have an attending staff who constitute the working staff of the hospital and we have a courtesy staff which includes most of the men in the immediate vicinity of the hospital. These men have the use of the private rooms of the institution to which they may send patients; they have the use of the laboratories, X-Rays, etc., and of course they have the privilege of doing operations if they so desire. But in addition to that we have a meeting of the entire staff the regular and courtesy. At this meeting all members of the staff report in detail the history of all cases which die in their service during the month. In addition they have the privilege of reporting any individual cases of interest that they may have had during that time.

These reports are discussed and any questions asked. We find it is working very nicely. It has opened up the hospital to more than double the number of men who were formerly attending and it has done so in an active way. The attendance is nearly 100% at these monthly meetings. I think the men are getting a good deal from it and not only do they come and ask questions but they discuss the problems which they have and give their own ideas. This plan has been in existence a year and a half now and there are no signs of a lessening of interest.

Dr. Fred C. Holden:

There seems to be something pessimistic this afternoon regarding this matter. I will be an optimist. I am an optimist because I don't believe it is possible to be otherwise after twenty-five years of medical practice. It has been my privilege to practice medicine for 29 years and I beg to take exception to Dr. Butler when he states that we are backsliders. If he were familiar with the condition as it existed 30 years ago he would not feel that they are more slack now than then. Bellevue Medical college had too many applicants for admission. There seems to be a great demand by men who want to study medicine. A great many after the war had to go to other cities. We had over 400. Each one was examined by the secretary. Records of his personal possibilities of making a good member of the medical profession were taken. No man was accepted until all were tested. Their letters of application were thoroughly considered. After we had looked over all the applications only 142 were admitted for the medical course. The student gets intense theory in three years; his fourth year is apprenticeship in hospital. He has to teach in nearly all the subjects so that he loses no time in the entire period. He is examined and has no right to enter certain subjects until he has passed examinations. We have no quizzes for State Board examinations. We had the privilege of being the highest on the list. Of Bellevue men of 1920 there were less than 3% failures in the State Boards of the country. Twenty-nine years ago it was possible for such a man to go to University of Virginia and come to New York and get clinical work and pass an examination in about two years. Now, to practice medicine they have to give four years in a medical college from which they graduate; then spend one year in hospital and that must be in a hospital that demands certain requirements. Only after this he can come back to the board of license and get a license to practice medicine. Would you not consider that these men are well prepared for medicine? I think we have gone far toward gaining what we are all trying to accomplish—a high standard for our medical men.

Dr. Butler:

There are just one or two remarks I want to make. Dr. Holden said I was a pessimist—his is the first time in my life I have been called a pessimist. I want to remove any impression that I may have made in my remarks that I think things are worse now than before. I think they are much better than they have been in the past. Dr. Holden's remarks as to the raising of the standards of Bellevue Hospital goes only to corroborate our hopes of what we thought should be. It only goes to show that the men are put through more or less of a character examination before they are admitted to the colleges and therefore before they go to the Board. Dr. Delatour brings up the matter of coming before a jury. The question of coming before a jury is a peculiar matter. There are no two juries alike. There may be someone on that jury whose wife had the service of an abortionist. If that man is a professional abortionist and is licensed, that license can be revoked notwithstanding the failure of the jury to convict. There is one other question—the question of fraud. That is one of the things for which a license to practice may be revoked the same as in abortion.

This has been a most interesting discussion to me and I am just as interested in hearing others as to have been able to get together these few remarks today.

Mr. Wright:

I want to go down as an optimist. I doubt whether any profession has made such rapid progress as the medical profession in the last twenty-five years. I don't think there is any question about it. It is not only advanced in the last twenty-five years but it has advanced very highly during that time. The general practitioner is a very much higher man than before. The few things I wanted to urge. Don't delay with your hospital practice so that the layman is the one who is going to find out your faults. I am a layman and I am finding out things that should have been found out by the medical men. There are many ways to check up results of hospitals. Don't let the thing go before the board or the lay trustees find out the conditions before you do. Dr. Delatour was speaking of it. Where you take up each case at the board meetings it will pro-

duce marvelous results and it will produce results such as are entirely unlooked for. The very thing that Dr. Delatour brought out—their method of carrying the information and nature knowledge through the active staff to the courtesy staff. That word courtesy staff has been changed to auxiliary. Courtesy sounds so much as if they were let in by courtesy. I think the percentage of attendance that comes to these meetings is a very encouraging thing. If the percentage were anywhere near 100%—say 50 or 75% that would be good. So that is one way of checking the standards in the hospitals. I am in the hope that the time will come when it will be possible when physicians send patients in the hospital to check up on the procedure of the cases before the patient goes in there. If that were done today you know there would be a good many slips revealed to show where he had failed to act when he could have forestalled the present stage of the patient's health. We would be less and less likely as cases came in to make slips and mistakes which he had made in other cases. Don't let a condition develop or remain unattended to in the hospital which the layman will discover before you do. Second, keep specially in mind that the service of the hospital both in the hands of comparatively few men who in some way send out as common knowledge of those who have not the privilege of the staff.





EDITORIAL



Medical Publicity

How far ought the medical profession go in placing their just claims before the general public? What necessity exists for medical propaganda? What results are likely to accrue? These three questions have been asked with increasing frequency and earnestness during the last ten years, not only in behalf of the individual practitioner of medicine, but on the part of institutions of medical learning, of hospitals, and of the practice of medicine as an institution. Within the last twenty-five years such tremendous strides have been made that medical practice as a whole has changed materially. It has changed so rapidly that many older graduates have been unable to keep up with the changes, and many younger ones have lost their heads and been swept away by the allurements of specialism which has grown up as mushrooms spring up in a night. It follows that physicians are strung out much as boys are in a game of hare and hounds; the leaders well-bunched, the main ruck well together a little behind, and the stragglers doing the best they can in an ever-extending trail. Some of them have lost the scent altogether, and are questing by themselves. Medical knowledge is in such a fluid state that it is difficult to make dogmatic statements that can be accepted as final. Some facts are definitely fixed; others that seem definite are disproved or fall into subsidiary places as new discoveries are announced; and some of these widely heralded discoveries do not bear the test of time. Isolated forms of treatment are seized upon and built up into panaceas by sects, whose devotees are attracted by the mysterious, and propaganda is constantly being manufactured by the unscrupulous whose theories profit in such exploitation. The country as a whole is in a state of social unrest. Luxury and extravagance are all too common, and the craving for excitement of all sorts is undermining sober judgment. Half-baked and indigestible theories are being shouted from every street corner, and beardless youths and uninstructed girls clamor for a leadership for which they are all unfit.

In such a turmoil it is to be expected that sober facts meet with little respect. How far ought the medical profession go to undertake to justify itself? One would say that it should go to the limit of consistency, but that limit is definitely circumscribed by the peculiar nature of medical practitioners. One has but to associate himself with any general medical society to be convinced that it is impossible to obtain unanimity upon even the most unessential points. And when it comes to questions of treatment not only is opinion divergent, but the divergence is often marked by personal bitterness that weakens any argument that can be placed before the general public. Dr. A. is conceded to be a well-educated physician, a good diagnostician, and he claims that strophanthus is superior to digitalis in the treatment of cardiac disease. Dr. B. is equally well-educated; equally efficient, and he announces that anyone who says that digitalis is not the superior drug is ignorant of the first principles of therapeutics. Dr. C. is firmly convinced that salt causes cancer. Dr. D., who is his peer in every way, calls it a silly foible. Of these four who is to go before a credulous public and speak for the profession with unquestioned authority? And when we find a sign which reads—"Dr. X, Medical Chiropractor"—how can we show a united front against what the vast majority of us know to be arrant charlatanism? One balky mule holds up the whole provision train. Some ten years ago a series of public lectures on matters of real medical importance were offered the people of Boston. The lectures were well attended. The idea was extended to Brooklyn, and for two years at least the Medical Society of the County of Kings, acting in conjunction with the Brooklyn Institute offered a series of lectures for the enlightenment of the Brooklyn public. These lectures were well-advertized, but it

is safe to say that the vast preponderance of the auditors were present at the personal invitation of the lecturer. It is now proposed that the New York County Medical Society acting with the Academy of Medicine shall provide a similar series of common sense talks, and that the Medical Society of the County of Kings shall establish a somewhat similar form of propaganda. It was Patrick Henry who said, "I have but one lamp by which my feet are guided and that is the lamp of experience." If the experience of the past holds any promise for the future little will be accomplished. And this prophecy is based not only upon the experience of ten years ago, but upon that of last year when the Society for the Control of Cancer held a series of meetings that drew extremely meager audiences. Should failures of this kind dampen our ardor to let the public know what we have really accomplished for their good and what they should know for their own protection against disease? This is a matter for general discussion, always bearing in mind that what may be offered must be sensational to attract a crowd, while it must be authoratative to carry conviction. Is the profession of medicine seriously threatened by the assaults that have been made upon it by the organized up-lifters? There can be no doubt that misguided enthusiasm may lead to legislation that is likely to hamper seriously the practice of medicine as it is now constituted, and it is even conceivable that a very considerable readjustment of medical methods may some day be brought about. To meet the real evils of such a situation it is essential that the thinking part of the people must be made aware of the real advances in medicine, and that a spirit of reasonableness and of co-operation must be developed among the public. But to accomplish this the weapons of frontal attack are inadequate. To stand up and tell a man he is wrong excites him to opposition. Equally, to assure him you are right is unconvincing. There is something curious in human nature that leads the crowd into opposition. To meet this situation it requires a propaganda that must be widespread, controlled from a central body so as to insure harmonious activities, and fed to the public in the way they like it best. If they will swallow two columns of monkey gland misinformation in one newspaper and like it, will they not with equal avidity accept medical material that is real if it is dished up in attractive style? One capable publicity psychologist acting for the entire medical body and syndicating its efforts throughout the country can accomplish more than seventy-five lecturers talking to limited audiences in New York City. Publicity is necessary for the medical profession, but it will prove a boomerang unless it is absolutely impersonal. This is a matter for the soberest thought on the part of the entire medical profession, and should be most carefully considered before undertaken.

H. G. W.

Note

Through inadvertence, due credit was not given *The Nation's Health* for its courtesy in permitting the reproduction of the charts illustrating Dr. Shipley's article on Industrial Health Work in the October number of this Journal.



Obituaries



DEPARTMENT UNDER THE CHARGE OF WILLIAM SCHROEDER, M.D.

Leo John Joseph Commiskey

Born in Brooklyn, N. Y., and died in the same city on April 15, 1921. He was the son of Frank W. Commiskey and Margaret McCormick. He was educated in the Polytechnic Institute and graduated M. D. from the College of Physicians and Surgeons, New York, in the class of 1904.

During his professional life he was Gynecologist to the Kings County Hospital and Bradford Street, and consultant to Mercy Hospital at Hempstead, a member of the Medical Society, County of Kings, 1906-21, the Associated Physicians of Long Island, 1911-13, Fellow of the American College of Surgeons, American Medical Association, Brooklyn Gynecological Society.

During the World War he served as Major at Base Hospital No. 37, retired with the rank of lieutenant colonel. He is survived by his wife, Ann Black Commiskey.

W. S., SR.

Robert William Glaubit, M. D.

Born in New York City, November 28, 1864, and died at Backville Centre, L. I., March 27, 1921, he was the son of Robert W. Glaubit and Dorothy Schrepifer. Educated in the schools of Brooklyn and graduating from the New York University in the class of 1888. During his professional life he was physician to the Ridgewood Day Nursery, and a member of the Medical Society, County of Kings, from 1908-21. He was also a member of the Arion Singing Society; Oltman's Lodge No. 446, F. A. M., Progressive Chapter No. 198, R. A. M.; DeWitt Clinton Commandery No. 27, K. T. and Kismet Temple, A. A. D. N., M. S.

He is survived by his wife, Augusta Kroder Glaubit; a son, Chester R. Glaubit, and a daughter, Mrs. Rita Hallenbeck.

W. S., SR.

John Kepke, M. D.

Born in Gustemundi, Germany, on July 19, 1860, and died in Brooklyn, N. Y. C., May 1, 1921.

His medical education was obtained at the St. Paul's Medical College, where he received the degree of M. D. in 1888, and at Bellevue in 1890. During his professional life he was surgeon to St. Catherine's Hospital and a member of the Medical Society, County of Kings, from 1895-1921.

He is survived by his son, John Kepke, Jr.

W. S. SR.

Emil, Frei, M. D.

Lived in Brooklyn all his life. Died on June 12, 1921, in his 49th year. He was educated in the public schools of Brooklyn and the College of Physicians and Surgeons, New York, where he received his degree of M. D. in the class of 1892.

He was a member of the Associated Physicians of Long Island from 1915 to 1921.

He is survived by his widow, Bertha, two sons and a daughter.
W. S. SR.

Ernest Schalck. M. D.

Born in Mins, Germany, in 1860, and died in Brooklyn, N. Y., April 15, 1921.

He was educated in Germany and graduated from the University of Wurzburg in 1882.

Came to Brooklyn in 1885. During his professional life here he was a member of the Medical Society, County of Kings, from 1900-13. Ophthalmologist to the Bethany Deaconesses Hospital, Wyckoff Heights, and the Knapp Memorial Hospital.

A member of Fessler Lodge No. 576, F. A. M. He is survived by his wife, Lucy, and a daughter, Hildegard Schalak.

W. S. SR.

Rupert Folger, M. D.

Born on May 27, 1875, at Nantucket, Mass., he was the son of Frederick W. Folger of Massachusetts and Caroline L. Stewart of Ohio and was educated at the Public and High Schools. His medical education was received at the Long Island College Hospital, where he received the degree of M. D., in the class of 1898.

During his professional life he was a member of the Queens-Nassau Medical Society, American Medical Association, Associated Physicians of Long Island, 1900-1921, Society of the New England Railway Surgeons, Cornucopia Lodge, F. A. M.

Dr. Folger died November 13, 1921, at Whitestone, Long Island. He is survived by his widow and one son, Peter Folger.

W. S. SR.

Julius Carl Bierwrith, M. D.

Born in Germany in 1857, and died at Long Beach, N. Y., May 2, 1921, his medical education was received at the College of Physicians and Surgeons, N. Y., where he graduated in 1885.

During his professional life he was a member of the Medical Society County of Kings from 1904-21. The Associated Physicians of Long Island, 1904-21. German Medical Society, New York Academy of Medicine, American Medical Association.

During the World War he served as a major in the W. S. A. Medical Corps.

He is survived by his wife, Florence Cox; a son, John Edward, and a daughter, Mrs. Clarence F. Prichard.

W. S., SR.

Robert Mathew Ulrich, M. D.

Born about 47 years ago and died in Brooklyn, July 27, 1921. He was educated in the public schools and the Brooklyn College of Pharmacy. His medical education was received at the Long Island College Hospital, where he graduated M. D. in the class of 1904. During his professional life he was a member of the Medical Society, County of Kings, 1914-15. Brooklyn Medical Society, 1907-21. Associated Physicians of Long Island, from 1912-16.

A member of Clinton Lodge, No. 453, F. A. M., and DeWitt Clinton Commandery, K. T., No. 27. He is survived by his widow, Ida Ulrich.

W. S., SR.

Frederick William Wunderlich, M. D.

Born in Brunswick, Germany, in 1841, and died in Brooklyn, N. Y., May 16, 1921. He was educated in the gymnasium of Germany. His medical education was received at the St. Louis Medical College, where he graduated in 1864. For a time he was surgeon in the United States Navy from 1866 to the time of his death, and was in the practice of medicine in this city.

During his professional life he was surgeon to St. Peters and St. Mary's Hospitals, a member of the Medical Society County of Kings, 1870-1921. The Associated Physicians of Long Island, 1905-1921. Brooklyn Surgical Society of which he was president in 1895-96, Brooklyn Pathological Society, New York Academy of Medicine, American Medical Association, Greater New York Medical Association, and the Brooklyn Neurological Society.



Regular Meeting February 23, 1921

Acute Intestinal Obstruction

1. MEDICAL ASPECT. LANTERN SLIDE DEMONSTRATION.
DR. ALBERT F. R. ANDRESEN.
2. SURGICAL MANAGEMENT.
DR. THOMAS M. BRENNAN.

Dr. Leon Louria:

"The subject has been covered so thoroughly there is really nothing to add.

"After listening to this, I suppose the medical man ought to take a back seat and turn the patient over to the surgeon. Still there are some conditions which do not need surgery, and these conditions, I think, are the most puzzling ones to deal with.

"It seems to me that the best and the easiest way to make a diagnosis of intestinal obstruction is to think of it. If we exclude from our dictionary 'indigestion,' ptomaine poisoning and other mysterious things, I think the diagnosis would be more readily made, and we shall have the surgeon relieve the condition.

"There are, however, some medical conditions which undoubtedly do not call for surgical interference.

"As has been pointed out, the history is of the greatest importance. A carefully-taken history is, I think, 75 per cent. of the diagnosis. If the physical examination does not reveal much, a carefully-taken history, I think, will give us the clue to the diagnosis, and if we are on the look-out and recognize the indications for surgery we will readily relieve the patient. But there are conditions which present a very grave clinical picture and still are amenable to medical treatment and surgery is not indicated. Some of these were not mentioned, lead colic for example. With a definite history and some objective symptoms differentiation is possible, in some cases, by the absence of a scaphoid abdomen. In this condition the colicky pain is present, and vomiting may be very pronounced. A slow pulse during the course of the attack is of assistance in diagnosis.

"I am glad renal colic was mentioned by the readers of both papers. I think it is important because in my experience I have had a few cases in which I was fooled by the patient and the surgeon was disappointed. I have had the experience of sending these patients to the hospital with a diagnosis of acute intestinal obstruction and the patients have relieved themselves during the night. The surgeon thought he would wait until morning. These cases are very interesting. They present all the characteristic symptoms, including the so-called fecal vomiting. I really don't know how to regard fecal vomiting. We usually classify vomiting that smells as fecal. If vomiting is extensive and peristalsis exists and no fluid is present and the pain is severe, I think we should always be sure to exclude renal colic.

"Another condition which offers a puzzling proposition is the so-called purpura. I came across two of these cases and was ready to ask the surgeon to interfere and because he was very conservative the patient escaped operation. Sometimes they give a previous history and sometimes they do not. They may only give a rather chronic history with acute exacerbation. The picture which presents itself at the operating table is a very, very instructive one. There are purpuric hemorrhages on the serosa of the small intestines, some loops are

filled with blood and the gut is purpuric. In one case the patient was a man 27 years of age, of neurotic temperament. Later he reminded himself that he had had some blood with his stool and that this was preceded by colic. It was not hemorrhoidal blood. He gave a long history of repeated attacks of colic until he was taken sick with very acute symptoms of intestinal obstruction.

"There is one more condition that I would like to mention which gives rise to difficulty, and that is so-called abdominal angina. In this condition it is not so easy to make a diagnosis, nor is it so easy to differentiate (from acute intestinal obstruction), but if an acute picture presents itself in a man of advanced years and he shows other evidences of arteriosclerosis, I think that before operation is decided upon, in spite of the excellent technic, he is a very poor surgical risk, and this should be considered. Here, again, the history will help because these patients, prior to an attack of abdominal angina, may present some other symptoms referable to sclerosis of the extremities. For instance, they complain of inability to walk, that it is necessary for them to stop, and they complain of pain in the calf of the leg. The radiation of the pain is of interest. In these cases almost invariably there is some radiation to the chest. The main seat of the pain is under the diaphragm, according to the patient's complaint, but there is radiation. I think if we investigate this closely, we can exclude abdominal angina.

"The value of laboratory investigation was referred to. Of course, we haven't got much time to do extensive laboratory work in these cases, but there is one thing which helps out. At least it served me in four cases to make the diagnosis. I am speaking of the urea. I think we should not minimize the importance of the increased urea. Cases of acute hemorrhagic pancreatitis mask the picture of intestinal obstruction better than anything else. They have all the cardinal symptoms. They have great pain, which does not yield to morphin. In the Jewish Hospital we have instituted a regular routine study of the urea, and I think we can come to some conclusions which are of help. It is increased to 30 or 40 per 100 c. c., but in cases of true intestinal obstruction the figures are much higher. I think if the figures go above 40 and there is no history of chronic nephritis or uremia, which, I think, can be easily and readily excluded, the lower figures will, I think, speak against intestinal obstruction, due to mechanical obstruction, like volvulus, or intussusception, due to bands. It is very interesting. I know of other cases where this was followed up and invariably very high figures have been proven correct as diagnostic aids.

"Not long ago a woman was brought to the hospital. She presented a very interesting picture. The diagnosis could not be easily made. The picture would fit acute pancreatitis, but, again, the symptoms were intestinal, being mainly of the lower abdomen. The abdomen was rigid. Operation was decided upon. The urea showed 30. The surgeon relieved the distention. The intestines were distended blue and edematous. She died. At autopsy no intestinal obstruction but acute pancreatitis was found. I am quite sure the surgeon could not have helped her at that stage, because if he had directed his attention to the pancreas and not to the intestine, he could not have saved her.

"I think it is of interest to all of us to make a tentative and more probable diagnosis before entering the abdomen."

Dr. John E. Jennings:

"I certainly agree with the Chairman and the readers of the papers in saying that the important point is the early recognition of the condition of intestinal obstructions.

"There is a large number of other conditions which have been mentioned, but there are two medical conditions which one encounters. One of these is the abdominal crises of tabes, which it is proper to mention when we are talking of any surgical condition. I have had the opportunity of meeting with this condition. The other condition which I have had an opportunity of seeing myself from what it looks like in the abdomen is angioneurotic edema involving the intestines. It is very interesting to see this inside of the abdomen, but I would just as soon avoid it. As Dr. Louria said, a careful clinical history might have avoided that mistake.

"The question of early diagnosis, however, viewed from the other standpoint, namely, from the viewpoint of the danger of delay, appears to me to be somewhat increased in recent years by what I consider the deplorable attitude of some members of the profession in regard to the standpoint of the management of acute appendicitis. I am sure a great many cases of appendicitis are subjected to observation, following the teaching of Ochsner, and perhaps misinterpreted. I hope so.

"The use of morphin is particularly dangerous in the diagnosis of cases of acute abdominal pain because it masks particularly well the peristaltic pain of acute intestinal obstruction. Given even in small doses and with the discretion that Dr. Andresen mentioned, it is difficult to maintain that discretion. It is easy to describe, but not to maintain it. Many cases of intestinal obstruction on the second or third day are masked by the exhibition of morphin.

"Dr. Andresen it seemed to me laid down rather clearly the attitude in regard to the diagnostic criteria of a history in cases of intestinal obstruction; that is, cases with central intermittent peristaltic pain in the abdomen, with obstipation, resistance to one, or at most, two carefully-given enemas, and with vomiting persisting after one, or at most, two gastric lavages. I think if we followed out the plan of paying careful attention to the history and the withholding of narcotics, we would have more opportunity of making a definite anatomical diagnosis on the table.

"I don't think, barring the presence of a palpable mass in the abdomen, barring the presence of hardness definitely to be made out in carcinoma, and barring the revelation of definite strictures of the rectum, we need go much further in the physical examination of such a case.

"The use of the radiograph or even the fluoroscope will, I think, waste time in a larger number of cases than those in which it will do any good.

"As far as the operative treatment is concerned, I don't think there is anything to add to what Dr. Brennan brought out as to the site or location, the way in which the exploration should be made and the way in which the condition should be treated, and the same observation holds true of his splendid resumé of the after-treatment. Morphin is most dangerous to use before operation, unless you are absolutely ready with the knife, and even then you sometimes miss your chance as you may lose your consent. Following operation I think morphin can be used rather than the Clarke opium treatment, which is more difficult to control. It will, as Treve said in his book on intestinal obstruction years ago, mask death. The use of opium will make the patient look as though he were going to live until he is ready to die. Morphin is a splendid help. It is the only thing we have as a physiological antidote to the poison which causes death.

"The experimental laboratory work varies from year to year. Five years ago we were taught by Whipple and his fellows that the poison was due to autogenous factors, and not to bacterial products. Last year we were taught by a splendid series of experiments, as splendid as those of Whipple, that that is not true, that it is due to bacterial products, but what material and what products we do not know. At any rate, our best antidote at this time is morphin, helped by pituitrin and always the addition of plenty of water."

Dr. Edwin H. Fiske:

"Mr. President, the discussion has been so thorough and the papers have been such complete and perfect ones that there doesn't seem to be very much left for anyone to say.

"After the point of diagnosis there are little aids which we may have, or which we think we have, individually, which may be of interest to others. I would like to mention two which I use myself, and which I think help me. The first is the fact that in washing out the stomach in acute intestinal obstruction, we usually get an intestinal content in the stomach. We wash out the stomach completely and empty the colon as thoroughly as we can. Then if we repeat our gastric lavage in an hour and find some content in the stomach, we can be pretty well convinced (if we have any faith in our original washing) that there is an obstruction.

"In regard to fecal vomiting, I might say Dr. Andresen said it was two days before we get fecal vomiting. The element of fecal vomiting is uncertain, as Dr. Louria said, and the worst type of intestinal obstruction is the high type, and in that we never get fecal vomiting, but in a few hours we get vomitus from the upper intestinal tract, which is highly toxic and will never become fecal, and it can be recognized by repeated stomach washings.

"Hyperperistalsis in acute obstruction occurs early and is the cause of the pain, and the hyperperistalsis can be appreciated by auscultation of the abdominal wall. It can be very distinctly auscultated and at times can be traced to its terminal point, at which point we can probably say there is perhaps obstruction.

"The way to look upon intestinal obstruction is the way it was described by Deaver about three years ago, namely, from the standpoint of three stages:

"First. The typical symptoms—pain, obstruction and vomiting.

"Second. The stage of evident hyperperistalsis and beginning distention.

"Third. The Hippocratic face, as described by Dr. Andresen.

"The first stage can be recognized in many instances, I think, by the methods that we have all heard and by the two little aids which I frequently use.

"There is one type which was not mentioned, with which I have had experience, which is a very severe type of obstruction and which is very difficult to diagnose, and that is the obstruction which occurs in herniation through the diaphragm. That has been mentioned in the way of obscure hernial obstructions. It is, of course, very difficult to diagnosis, but it must be remembered as among the symptoms of obstruction with very obscure abdominal findings.

"The operative treatment of intestinal obstruction, if I may say one word in respect to that, seems to me as we go along in surgery to be becoming more and more of that type of operation which is called conservative, and during the acute stage of intestinal obstruction the more conservative we are and the less we do the lower our mortality rate will be."

At this point in the discussion Dr. Fiske spoke of the question of "simple enterostomies," and said that "in cases where prolonged search and prolonged operative periods are indulged in the result will be fatal."

Continuing, he said:

"In regard to the postoperative treatment of intestinal obstruction I have nothing to add, except to recommend in an occasional case, in addition to the morphinization and the persistent gastric lavage, the use of intravenous medication, best of all in the form of human blood transfusion, either direct or by the citrate method, and, secondly, the use of the method of glucose and bicarbonate of soda. I am sure that direct blood transfusion has never done any of my patients any harm. On the contrary, I feel certain that it has been the means of giving to several just that little bit of strength and energy and 'pep' that succeeded in pulling them through."

Dr. Frank D. Jennings:

"Dr. Fiske mentioned auscultation, which is important.

"Dr. Deaver, in his characteristic manner, at Montreal last fall, said that in acute abdominal obstruction he always instructed his house surgeons to put the stethoscope on the belly, and not on the chest. We can gain useful information in that way."

Dr. Thomas B. Spence:

"After we get this question all fixed up we can go away feeling that we have had some points called to our attention which will help us diagnose intestinal obstruction. Tomorrow we will probably be called to see a case and we won't know whether or not to open the belly. Sometimes they have no pain. Sometimes they have much pain. Sometimes they don't have much vomiting. Sometimes they vomit continuously. They may vomit once a day. They may vomit one day. They may go two days without vomiting. They may vomit the next day and have intestinal obstruction all those four days. I have had such a case recently. They may get a motion of the bowels; at least they say they had and the family says so, too. What can you say? You were not there. You don't know whether they did or not.

"It is very difficult to make up your mind sometimes as to whether the patient has intestinal obstruction, early enough to save the patient, and it behooves all of us to be eager to operate on them."

Dr. Frank D. Jennings:

"I take it from your remarks, Dr. Spence, that you are referring to incomplete obstruction."

Dr. Thomas B. Spence:

"Perhaps. It seems very complete when you get in."

Dr. Frank D. Jennings:

"Well, that raises a phase of intestinal obstruction which has not been mentioned tonight, and that is the incomplete intestinal obstruction, of which we see types now and then, which are hard to diagnose. They vomit and

then stop vomiting, perhaps have a bowel movement or expell flatus, you wait 12 or 24 hours or longer and they drift along into the third stage and 'go out.'

"Has anyone here had any experience with the blood urea? That is, the estimation of the blood urea. It seems to me that is an important factor. I had a case recently in which the blood urea was 77 and dropped after enterostomy to 35. It was of real value in making the diagnosis."

Dr. William H. Rankin:

"This is such a tremendously big subject and so much has been said and it has been so well said that I would like to say one or two words about a broad phase of the subject that has been mentioned here tonight as to the cause of this toxic condition. I have 4 or 5 patients wandering around the city on whom I have done enterostomies, leaving in the large colon, almost half and sometimes two-thirds of it and even less. Those people are perfectly well. They are not poisoned by so many germs in the intestine, but it must be remembered that this is the large intestine. The enterokinase which is secreted by the small intestine, and which has a very virulent effect on transportation, seems to be the real cause of the toxic symptoms. If it were not so, then how is it that these people are going about with the large intestine cut out; that is to say, the terminal loop of the ileum switched over to the sigmoid, taking out the growth and leaving the intestine in? That I did at first, not of choice, but of necessity, in a woman with carcinoma in which I had switched over her ileum and removed the growth and there was so much of the mesosigmoid involved and I had to take such a large part of the fat away that by that time she was not getting on any too well and I decided to close her up. However, she went on perfectly well, there was no distention of the loop, no discomfort, and the woman has been perfectly well since, has gained in weight and has been enjoying perfect health.

"The next case I ran across was a carcinoma of the sigmoid, perhaps a little above it, in which I did the same thing, removing the growth. That man is perfectly well and working hard.

"Then it occurred to me that I didn't see why I should remove the mesosigmoid or try to do an end-to-side when the omentum could be left, which was a very vital factor.

"These five people are perfectly well. They all have an end-to-side with the ileum into the sigmoid. They have a closed large intestine and they are not suffering any toxic symptoms whatever, nor are they suffering from any poison. It must be remembered, however, that the large intestine is absorbing and not secreting and is above all the part of the intestine and below which has to do with the enterokinase which controls digestion. All this seems to me to point to the small intestine as being the probable toxic cause of the trouble."

Dr. John E. Jennings:

"I would like to ask Dr. Rankin in order to make it clear to myself and possibly to others, if the five patients have a loop of large intestine closed at both ends."

Dr. William H. Rankin:

"They have a loop of large intestine closed at both ends."

Dr. Henry F. Graham:

"What was the length of time?"

Dr. William H. Rankin:

"Well, I should say 3 or 4 years to 6 months."

Dr. Luther F. Warren:

"The subject has been covered so well that there is little that can be offered.

"I think we all feel, after hearing the readers of the papers and those who have discussed them, that, after all, intestinal obstruction is a very hard thing to diagnose, and certainly I feel that way each time I meet one. I think each individual has individual symptoms with this condition, and although

we say that they start with pain and have nausea and vomiting and obstipation, still, as Dr. Spence pointed out, in some cases the patients may go on with practically none of those symptoms and yet have intestinal obstruction. With so many possibilities in mind, it seems to me we have a condition which is an eliminative one, and we arrive at an opinion by eliminating many of these other things. If we look at it from that viewpoint, I think we arrive at a quicker diagnosis and quicker help for our patient. I think that in the past it was our wont to work with a patient, studying him for 6, 8, 10 or 12 hours, arriving at the opinion that the patient has an intestinal obstruction, then asking the surgeon to see the patient and he will want to see the patient in 8, 10 or 12 hours, and then he will pass his opinion. The same thing is true of the opposite side. The first time you see them there is something atypical in the case which you have not seen before, and you say, 'I would like to see the patient again in 4 or 6 or 8 hours.' I think we can shorten the time by studying them together and I mean by that really studying them together, going into the history in detail and sitting down and eliminating many of these things which we have said have to be eliminated before we can properly arrive at an opinion.

"I want to emphasize what Dr. Louria has said in regard to the importance of a history because many acute intestinal obstructions come from a chronic condition. I recently had a couple with a very interesting history. One of them was a very heavy woman with double mitral disease. She noted that each time she went to bed with broken compensation the abdomen became very much distended, she was nauseated and vomited for a few days and would be constipated for a few days, but during this time there was practically no distention. I instructed the nurse to turn her from side to side frequently. She was in bed about five days when the abdomen began to swell again and I thought she had some imperfect obstruction, but it acutely went on, and after two or more days, after great care, we felt that the only thing that could be done was an attempt to relieve her by operation, and it was found that she had an ulcer down in the small bowel with a kinked bowel, so that necrosis followed in the ulcer bed, which gave rise to obstruction.

"Recently I had a very heavy man with a new growth of the splenic flexure, with a history, which was fairly definite, of recurring attacks of colicky pain in that region, but he had many other clinical conditions, such as high (blood) pressure, moderate chronic nephritis and chronic constipation which he had with recurring attacks of pain in the left quadrant, which latter symptom we passed over lightly. We rayed him and it didn't show specifically anything, and he went out. About 4 weeks after leaving the hospital he had acute intestinal obstruction and was operated on and a new growth found. So I do know that many acute ones have a chronic history, and I think we should stress that in that group.

"The other groups, such as have been mentioned, namely those associated with infections, have certain clinical symptoms, particularly temperature, which helps us very materially. Ordinarily, temperature starts early.

"The group associated with conditions such as have been mentioned is a group by itself. I think they need the medical man's opinion with the surgeon. I think they should work together for the best opinion and for the quickest opinion, because we recognize that there is a great deal in the united opinion for therein lies the patient's best chance and delay is certainly disastrous in the presence of obstruction."

Dr. Edwin H. Fiske:

"I understood Dr. Brennan to say he did not approve of local anesthesia. I consider it the safest of all anesthetics.

"General anesthesia in the form of nitrous oxid and oxygen, or even ether, I consider to be the best anesthetic."

The doctor cited a case to bear out his point, after which he went on to say:

"I would like to ask Dr. Brennan if I understood him correctly in saying that the mucosa of the distal loop did not absorb the toxic material."

Dr. Albert F. R. Andresen:

"If there is one thing that we have learned this evening from the discussion it is the fact that we want to avoid seeing the three-fold stage of intestinal obstruction described by Deaver. We want to avoid the second and third stage if possible. It is not always possible to make a diagnosis in the

first stage, but we certainly ought, as I emphasized in the paper, come to it in the third stage.

"Operation should, if possible, be performed when we have those three cardinal symptoms of peristaltic pain, vomiting and obstipation. Operation should not be delayed for two or three days when the patient is practically moribund.

"Peripheral and angioneurotic edema, which somewhat resemble one another in the intestine, should be simply explained by the history, and it would also clear up rather rapidly as a rule, so that by the time preparations for operation were made the obstructive symptoms would probably be relieved, and this observation could be made better if no morphin is given, so I think in these cases it is better in obstruction not to give morphin until after operation.

"Abdominal tabes and gastric crises give different pain than the peristaltic pain of obstruction. You get severe pain which at first is continuous and then ceases rather suddenly."

At this point in the discussion, Dr. Andresen referred to the question of enemas and said:

"An enema could be given while preparations for operation are being made. I think it is of help in some cases in determining the site of operation and might locate accurately, or at least, somewhat the place of obstruction.

"My mention of the castor oil enemas was very definitely emphasized as being only a very early procedure, something to be done for the patient, if it had not been done. We certainly want to make at least one good effort and it might just as well be a good one while we are at it at the beginning of the symptoms so as to make sure it is not a fecal impaction.

"The question of the absorption of toxins was discussed fairly accurately—whether the toxins are a result of a secretion (a perforated secretion) in the intestine, or whether they are produced by bacterial action beyond the points of the intestine, does not make so much difference, but the observation that the toxins are not absorbed in healthy gut but in gut where the circulation is interfered with, is the important point. Normal, healthy gut will not absorb these toxins, even if they have been injected into it. In this condition the isolated loops, if they were first washed with the water and ether mixture, were found not to absorb as readily, and a good many of the animals recovered from the operation because of the washing, which somewhat improved the tone of the gut and prevented absorption. Then if some of the material from the isolated gut were injected into another animal's isolated loop intravenously, intraperitoneally or intramuscularly, it produced marked intestinal symptoms.

"If we can avoid the occurrence of the damaged gut; in other words, if we can operate before symptoms of intestinal obstruction or regurgitation into the stomach before reverse peristalsis takes place, the operation will be much more successful than if we wait until those symptoms occur.

"If I may be pardoned for making one suggestion in regard to the surgical treatment, I would like to say I think the conservative treatment of enterostomy or colostomy is the thing most of us would prefer to have done. The surgeon when he goes into the abdomen and sees an obstruction is often tempted to make a beautiful job of it and removes the obstruction—the carcinoma or whatever causes the obstruction, and the patient dies cured, as Dr. Jennings said."

Dr. Thomas M. Brennan:

"In going over the cases of intestinal obstruction I find that those that do best are the ones which are seen in the early stages and are followed very closely from the time they are first suspected of having intestinal obstruction. This is possible most frequently among the well-to-do and in private nursing homes and private sanitariums. The results in those cases are better than in cases which are seen casually and are not under continuous observation in general practice. Therefore, early observation of and constant attendance of the medical man on a case suspected of having intestinal obstruction, together with counsel, surgical or medical, will give the best results, in my opinion.

"It would seem that cases in which intestinal obstruction is suspected should be sent to the hospital where consultations may be held and where one will not be tempted to give morphin to any great extent, if at all. The average practitioner when called into a house to see a patient finds the patient in extreme abdominal pain demanding relief and very commonly morphin is resorted to. If the patient were in the hospital crying with pain he would be operated shortly, when under careful, continuous observation and management relief was futile by any other means.

"In most of these cases it isn't necessary to make a positive diagnosis. Operation should be attempted even though such a diagnosis has not been made.

"Dr. Louria's point in regard to the history is most important. However, you cannot always get a history from a patient who is so terribly sick and suffering so much pain. The history should be gotten not only from the patient, but also from the attendants and those who know something about his disease.

"Don't wait for fecal vomiting. If vomiting is persistent and continuous and early, it is a very serious condition and procrastination should not be indulged in.

"Mesenteric thrombosis: I think the observation there is a good one. That one case that recovered was operated on by Deaver and his judgment was that it didn't seem that operative procedure would do any good. That case made a spontaneous recovery.

"In superior mesenteric embolism the result may be fatal.

"There is no doubt in my mind but that there are many cases of thrombosis in the veins that recover without operation. I think some of those peculiar cases of colic might be explained in that way—thrombosis in the veins which clears up spontaneously.

"I think the case of hemorrhagic pancreatitis spoken of by Dr. Louria would be a most difficult one and I believe the surgeon did the only possible thing he could have done.

"In regard to local anesthesia, I not only agree with Dr. Fiske, but I warmly advise it when the operation is to be an enterostomy, and even if the procedure might be more extensive I don't think we do any harm by local anesthesia. It blocks off the nerve impulses and protects against added shock. I do insist on gas-oxygen with occasionally a little ether if it becomes necessary. Do away with the lipid solvents as anesthetics in these cases if possible.

"I do not see why a blood transfusion would not be a very strong factor in the after-care.

"Dr. Spence's point about taking the word of an attendant about an enema brings home a very sad story in a case of acute intestinal obstruction, following appendicitis, in which I delayed operation because we had the testimony of an orderly that an enema had been given and that the patient had had a movement. Further investigation indicated that no such thing had occurred. There had been no movement. If that case had been operated on he would have lived, I think."

At this point in his discussion, Dr. Brennan referred to the tendency of adhesions to cause recurring attacks of obstruction, either partial or complete, the bowel slipping under the band or adhesion and becoming caught, and a little later becoming loosened again. Intermittent and recurring attacks of obstruction often characterize volvulus and intestinal stricture or intestinal foreign body.

Continuing, the doctor said:

"In regard to the distal loop (this in answer to Dr. Jennings), the theory is that unless you interfere with the circulation of the gut, or unless you abrade the mucous membrane, you will not get absorption of the toxin, and that when the toxic material is discharged into the healthy loop, you do not get any absorption of the toxin from the healthy mucous membrane. In my opinion, it is well to take no chances. Theoretically it is very nice. The point is your abrasion or your traumatism of the mucous membrane is not infrequently provided by your operative procedure and in your enterostomy. That may produce new traumatism of the mucous membrane and provide for absorption of the toxins, so, by all means, empty the distended loops."

MEDICAL BOOK NEWS

Edited by JAMES M. WINFIELD, M. D.

All communications, books for review, etc., should be addressed to the Editor of this Department, 1313 Bedford Ave., Brooklyn, New York

December, 1921

5 Pages

DISEASES OF THE SKIN

PRACTICAL TREATISE ON DISEASES OF THE SKIN. By Oliver S. Ormsby, M. D. Second Edition, thoroughly revised. Phila. and New York, Lea & Febiger, 1921. 1166 pages, 445 illustrations, 4 plates, 8vo. Cloth, \$10.00.

This, the second edition of Ormsby's book, is a marked improvement over its predecessor. It contains over eleven hundred pages of good crisp material, of which about four hundred pages have been rewritten and fifteen new diseases have been described.

There is nothing novel in the author's presentation of his subject, for he follows the standard classification of diseases and discusses each disease under the usual headings of etiology, pathology, diagnosis, treatment and prognosis, but his manner of expression is very clear and consequently it becomes a pleasure to study his book.

He also presents a very complete bibliography making for facility in looking up particular subjects. The plates in the book, numbering nearly four hundred and fifty, are of very good quality.

All these taken together make an extremely useful and valuable work.

E. A. G.

CLINICAL SURGERY BY CASE HISTORIES

CLINICAL SURGERY BY CASE HISTORIES. By Arthur E. Hertzler, M. D., Ph.D., F. A. C. S. St. Louis, C. V. Mosby Company, 1921. 2 vols. 1106 pages, 483 original illustrations. 8vo. Cloth, \$16.00 per set.

As the title indicates these volumes are made up of case records. The first chapter is a well written essay on examination of patients, history taking, etc. The case records presented cover pretty much the whole range of surgery; but they are extremely sketchy and fragmentary, as the author intended, and for this reason do not readily hold one's attention. There is no doubt that such a publication may inspire others to better record keeping, and the

benefit to the author himself, to his assistants and to the institutions in which he works is easily recognized.

T. B. S.

OPERATIVE SURGERY

OPERATIVE SURGERY. By J. Shelton Horsley, M. D., F. A. C. S. St. Louis, C. V. Mosby Company, 1921. 721 pages with 613 original illustrations. 8vo. Cloth, \$10.00.

Special emphasis is made by the author upon the preservation of physiologic function and the proper interpretation of biologic processes in relation to surgical operations. The article on drainage is most interesting and throws a great deal of light on certain processes of the body defenses.

The section on vascular and plastic surgery, and also the surgery of the skull are well presented and abundantly illustrated. The operations of amputations have been dealt with quite extensively, and the fundamental principles are gone into very thoroughly. To the beginner, particularly, this will prove of great value.

The subject of hernia is very well covered. Wisely, the author, has left out many of the unnecessary and obsolete procedures and the various modifications, that have no particular advantage and are only a cause of confusion to the student. The principles of the Bassini operation are thoroughly elaborated with the addition of Halstead modification. It is a relief to see the Kocher operation omitted—an operation that Kocher himself had abandoned years before his death.

The Inguinal approach for the treatment of femoral hernia is described with considerable detail. This method, is unfortunately, not generally practiced, and yet it is the only logical procedure, if permanent results are to be obtained. It is perhaps a little more difficult but the effort is well worth while.

The section devoted to abdominal surgery represents the most interesting part of the book, especially that part dealing with peptic ulcer. The late results of gastroenterostomy in the

treatment of ulcer have not been very good in a large percentage of cases. Those who are familiar with the current literature on this subject will not have failed to observe the feeling of skepticism and disappointment as regards the efficacy of gastroenterostomy, implied or expressed in many recent contributions. Horsley offers plausible reasons why the operation is a failure in many cases. He draws an analogy between ulcer of the stomach and duodenum and that of ulcer or fissure in ano. The latter does not heal readily because of the almost continuous action of the sphincter ani. To cure the fissure, it is necessary to paralyze the sphincter temporarily, and at the same time to extirpate the ulcer. No one would attempt to cure a fissure in ano by doing a colostomy, to divert the fecal current. And, yet, we try to cure the ulcer of the stomach or duodenum by a gastroenterostomy. Horsley insists that to cure the ulcer it must be excised, and in addition the pyloric sphincter should be cut across, and the operation completed by what he terms a pyloroplasty. The details of the operation need not be described here as those who are interested will do better by reading the original text.

Horsley does not discard the operation of gastroenterostomy, altogether, as it surely has its proper use and indications. In obstruction at the pylorus, in inoperable cancer, or in extensive stenosis of pylorus and duodenum as result of ulcer, when pyloroplasty can not be carried out, then gastroenterostomy is the proper operation. This is also true in cases of subacute perforation, or in a very large ulcer, with considerable inflammatory infiltration. In acute perforations however, before there is extensive infiltration of the surrounding tissues excisions of the margins of the ulcer with pyloroplasty is the operation of choice.

The principles of surgery, says the author, are to extirpate pathology or to correct it, which will result in restoration of the physiology of the tissues and organs. Surgery, he adds, should be more a science than an art. To the reviewer the last remark is quite significant.

HERMAN SHANN.

PSYCHOLOGY AND PSYCHOTHERAPY.

PSYCHOLOGY AND PSYCHOTHERAPY. By William Brown, M. A., M. D. New York, Longmans, Green & Co., 1921. 196 pages. 12mo, Cloth, \$3.00.

This book is one of the best produced in England since the War. The author endeavors to cover all of the schools on Psychology. He uses the Freudian as well as the older methods of Psychology in his treatment. As a whole the treatment of the book is good and his cases are well described. Some of the statements are rather far fetched but as a rule the advice is reasonable and sensible. The book is well worth reading by anyone interested in the subject.

S. R. L.

SURGICAL CLINICS OF NORTH AMERICA JUNE, 1921.

THE SURGICAL CLINICS OF NORTH AMERICA, Vol. 1, No. 3, June, 1921. Boston Number. 345 pages, with 159 illustrations. Published Bimonthly (Six numbers a year) by W. B. Saunders Company, Phila. & London. Paper, \$12.00 net; Cloth, \$16.00 net.

The June number is contributed by Boston surgeons. The contributors are associated with the Harvard Medical School and the Massachusetts General Hospital.

The subjects are well selected and splendidly written. "Tuberculosis of the Knee Joint," "Angioma of the Knee Joint," and "Traumatic Osteitis of the Wrist" are three unusual and rare articles. "The Syme Amputation" is urged in cases of tuberculosis, osteomyelitis, etc., of the tarsal and metatarsal bones. A detailed description with sketches, shows every stage of the operation.

"Symptomatology of Carcinoma of the Large Intestine" is a very complete article and covers the subject in detail.

On the subject of "Lung Abscess" the writer states that "out of 32 cases in which the etiology was definite, 17 were due to removal of tonsils, 1 removal of adenoids only, and 3 to extraction of teeth." He goes on to say that there is real danger in tonsillectomies, and reports "a short time ago there were 5 lung abscess cases on the surgical service of the Massachusetts General Hospital, all of which had been preceded by removal of tonsils under general anaesthesia."

In "Congenital Hypertrophic Pyloric Stenosis" the writer reports 48 cases operated with 2 deaths.

Other articles deserving special mention are "Tendon Surgery," "Head Injuries," "Surgical Treatment of Carcinoma of Cervix Uteri," "The Problem of Renal Calculus."

HARRY R. TARBOX.

MOYNIHAN'S ESSAYS ON SURGICAL SUBJECTS.

ESSAYS ON SURGICAL SUBJECTS. By Sir Berkeley Moynihan, K. C. M. G., C. B. Phila. & London, W. B. Saunders Co., 1921. 253 pages, illustrated. 8vo. Cloth, \$5.00.

Anything written by Sir Berkeley Moynihan always attracts immediate attention. He possesses the rare gift of presenting his subjects clearly, emphatically, and always to the point.

"The Ritual of a Surgical Operation" outlines a technique which is finished and complete. Established on sound principles which have been acquired by years of observation and study, the whole procedure, as outlined, might well serve as a hospital standard. The author has little sympathy for the flashy operator or the "dull hewer of flesh."

Sir Berkeley says much about "Gastric Ulcer" that is new. He bases his diagnosis on pain plus X-ray findings. He contends that in

the light of modern research, most of the text book writings should be revised. He expresses little enthusiasm for the chemical examination of stomach contents. He has modified his operative procedure in cases of gastric ulcer.

"Acute Emergencies of Abdominal Disease" gives more direct, useful information than a score of text books. The article is a classic.

The English and French surgeons have had unusual opportunities to observe and study projectiles within the thoracic cavity. "Surgery of the Chest in Relation to Retained Projectiles" is a new subject and presents lung surgery in a new light.

HARRY R. TARBOX.

BIOCHEMISTRY.

BIOCHEMISTRY. A study of the Origin, Reactions, and Equilibria of Living Matter By Benjamin Moore M. A., D. Sc., F. R. S. New York, Longmans, Green & Co., 1921. 340 pages. 8vo. Cloth, \$7.50.

As the author states in his preface, this book is not intended to be a general text-book on the subject of Bio-Chemistry but rather a treatise on the origin and reactions and balances of living matter. Accordingly one finds the preliminary chapters devoted to such fundamental phenomena as "Biotic Structure and Biotic Energy," "Life and Light" and "Synthesis by Sunlight in Relationship to the Origin of Life." In the first named chapter the author discusses in great detail the physiology and chemistry of the cell and explains clearly what is meant by the terms "colloid" and "crystalloid" when applied to states of matter existing in the cell. In the chapter "Energy Transformations in Living Matter" the author remarks that experimental evidence shows "that the living cell is not a peculiarly constructed membrane obeying, even where it most directly seems to disobey, the physical laws of diffusion and osmosis; but is an energy machine or transformer by virtue of the operation of which a form of energy appears peculiar in its manifestations and phenomena to living matter and producing adaptations and combinations in non-vital matter, which in many instances have not been imitated, and in others have only been imitated by obviously different processes, by the application of other forms of energy acting through non-vital transformers."

Three chapters are devoted to enzymes and in them the author discusses their chemical and physical nature, theories as to the mode of action of catalysts and enzymes, and the influence of various factors upon enzymes and cells. In the section on secretion and glandular mechanisms there is an excellent chapter on the influence of the nervous system upon secretion. In it the author discusses the innervation of various secreting glands and records the effects of artificial stimulation of the nerves supplying these structures.

On the whole the book gives evidence of having been written with painstaking care by an author who is thoroughly familiar with his subject. It should prove especially valuable to those whose interest in the subject of Bio-chemistry leads them to seek the "whys" and "wherefores" of biological reactions. A fairly good Bibliography and an unusually complete index add materially to the value of the work.

FRANK E. MALLON.

WARFARE IN THE HUMAN BODY

WARFARE IN THE HUMAN BODY. Essays on Method, Malignity, Repair and Allied Subjects. By Morley Roberts. New York, E. P. Dutton & Company 1921. 286 pages. 8vo. Cloth, \$7.00.

In this collection of essays, Morley Roberts shows not only a wide knowledge of pathology but reveals much of his own remarkable personality. As though not content with the achievement of a considerable reputation as an author and artist, this many-sided Englishman engaged in sociological research, decided a knowledge of biology and pathology was necessary and has made a second reputation as an erudite writer on medical topics. There are few physicians who can write so authoritatively on pathology, so it is truly remarkable to find a layman displaying such a wealth of knowledge. Moreover, he writes with rare imagination, sound judgment and a delightful literary style.

The basic idea in these essays is that the same fundamental laws are operative in biology and sociology; that there is a close relationship between human health and disease and social physiology and pathology and that by analogy the known facts of sociology may help to explain some of the problems of pathology. Mr. Roberts undertakes to throw some light upon neoplastic disease, tissue repair, immunity and kindred subjects. While we may not completely agree with the author, we must thank him for giving us a new viewpoint by showing how such an apparently unrelated subject as sociology can be made to aid in medical research. We also commend his plea for the greater use of the imagination in science, especially when restrained by the knowledge and common sense which he has employed. In the collection are two papers on "The Cannibal in Evolution" and the "Origin of Therapeutic Bathing." These are semi-medical, written in somewhat lighter vein and make interesting reading for a quiet evening as well as throwing more side-lights on the varied experience of this remarkable man.

E. B. SMITH.

PRACTICAL MEDICINE SERIES, 1921.

PRACTICAL MEDICINE SERIES. Comprising Eight Volumes on the Year's Progress in Medicine

and Surgery. Under the General Editorial Charge of Charles L. Mix, A. M., M. D. Chicago, The Year Book Publishers. Price of the Series of eight volumes, in cloth, \$12.00.

SERIES 1921, VOLUME 2. General Surgery, Edited by Albert J. Ochsner, M. D., LL. D., F. A. C. S. 625 pages, illustrated, plates 12mo. Price of this volume \$2.50.

This very important yearly résumé should be greeted with enthusiasm by those students who wish to follow the progress of surgery and surgical pathology during 1920.

The material is presented in condensed form by Ochsner and is culled from the literature of the world.

Even though one subscribes to the International Abstract of Surgery and to The International Medical and Surgical Survey, this volume will be found to occupy a valuable place in one's library. It is worthy of its unique position. Ochsner has continued the work where the late John B. Murphy left off and he is to be congratulated for his splendid efforts.

ROYALE H. FOWLER.

SERIES 1921, VOLUME 3. The Eye, Ear, Nose and Throat, Edited by Casey A. Wood, M. D., Albert H. Andrews, M. D., George E. Shambaugh, M. D. 392 pages, illustrated, plates. 12mo. Price of this volume \$1.75.

This year's volume is a comprehensive résumé of the literature both American and foreign, of the special subjects of Ophthalmology and Otolaryngology.

Although primarily for the general practitioner, the specialist finds in it a summary of the best work that has been done recently, and the opinions of those men who are active in their particular fields.

The general style and selection of material and occasional comment of the Editor enhances its value. It is the type of book that gives a good deal of information in a small space so that "he who runs may read."

M. C. MYERSON.

TRATTATO DI IMMUNOLOGIA.

TRATTATA DI IMMUNOLOGIA. By Eugenio Centanni, Professor di Patologia General nella R. Università di Modena. Milano, Società Editrice Libreria 1921. 318 pages, illustrated. 8vo. Paper, price Lira 25.

The author gives a very comprehensive and complete exposition of the development and present status of immunology.

The text is divided into five sections as follows:

1. Physiological basis of immunity.
2. Active principle of vaccines.
3. Serumtherapy.
4. Proteintherapy.
5. Therapeutic applications of immunity.

The illustrations, quite naturally, are diagrammatic in character, but serve to explain

and simplify the rather difficult and abstruse subject matter.

Such works, while especially intended for, and valuable to, serologists, nevertheless contain much that is vitally necessary for the intelligent practice of medicine in the light of present day knowledge.

W. H. DONNELLY.

BOOKS RECEIVED.

Books received for review are acknowledged promptly in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases review notices will be promptly published shortly after acknowledgement of receipt has been made in this column.

THE PRACTICAL MEDICINE SERIES. Comprising Eight Volumes on the Year's Progress in Medicine and Surgery. Under the General Editorial Charge of Charles L. Mix, A. M., M. D. Chicago, Year Book Publishers. Price of the Series of eight volumes, \$12.00.

Series 1921, Volume 2, General Surgery, Edited by Albert J. Ochsner, M. D., LL. D., F. A. C. S. 625 pages, illustrated, plates. Price of this volume \$2.50.

Series 1921, Volume 3, The Eye, Nose and Throat, Edited by Casey A. Wood, M. D., Albert H. Andrews, M. D., George E. Shambaugh, M. D. 392 pages, illustrated, plates. Price of this volume \$1.75.

HUMAN EMBRYOLOGY AND MORPHOLOGY. By Arthur Keith, M. D., F. R. S., LL. D., F. R. C. S. Eng. Fourth Edition, revised and enlarged. New York, Longmans, Green and Company, 1921. 491 pages, illustrated. 8vo. Cloth, \$10.50.

MEDICAL EXAMINATION FOR LIFE INSURANCE. By Thomas D. Lister, C. B. E., M. D., F. R. C. S., M. R. C. P. London, Edward Arnold & Co., New York, Longmans, Green & Co., 1921. 168 pages. 8vo Cloth, \$3.75.

A GUIDE TO URINARY DISEASES. By Adolphe Abrahams, O. B. E., M. D., and A. Clifford Morrison, O. B. E., F. R. C. S. (Eng.) London, Edward Arnold & Co., New York, Longmans, Green & Co., 1921. 120 pages. 8vo. Cloth, \$3.00.

CHEMICAL DISINFECTION AND STERILIZATION. By Samuel Rideal, D. Sc. (Lond.) and Eric K. Rideal, D. Sc. (Lond.), M. A. (Cantab.) London, Edward Arnold & Co., New York, Longmans, Green & Co., 1921. 313 pages 8vo. Cloth, \$7.50.

HYGIENE. By J. Lane Notter and R. H. Firth. Ninth Edition. New York & London, Longmans, Green & Co., 1921. 540 pages, illustrated. 12mo. Cloth, \$3.25.

MORRIS'S HUMAN ANATOMY. A Complete Systematic Treatise by English and American Authors. Edited by C. M. Jackson, M. S., M. D. Sixth Edition, revised and largely rewritten. Phila. P. Blakiston's Son & Co., 1921. 1507 pages, 1164 illustrations. 8vo. Cloth, \$10.00.

FOOD PRODUCTS; THEIR SOURCE, CHEMISTRY, AND USE. By E. H. S. Bailey, Ph. D. Second revised edition. Phila., P. Blakiston's Son & Co., 1921. 551 pages, 92 illustrations. 12mo. Cloth, \$2.50.

INSANITY AND MENTAL DEFICIENCY IN RELATION TO LEGAL RESPONSIBILITY. A Study in Psychological Jurisprudence. By William G. H. Cook, LL. D. London, George Routledge & Sons; New York, E. P. Dutton & Co., 1921. 192 pages. 8vo. Cloth, \$4.00.

TYPHUS FEVER WITH PARTICULAR REFERENCE TO THE SERBIAN EPIDEMIC. By Richardson P. Strong, M. D., S. D. George C. Shattuck, A. M., M. D. A. W. Sellards, A. M., M. D., Hans Zinsser, M. D., J. Gardner Hopkins, M. D. Cambridge, Mass., Harvard University Press, 1920. 273 pages, plates. 4to.

THE PROSPECTIVE MOTHER. A Handbook for Women During Pregnancy. By J. Morris Slemmons, M. D. Second Edition. New York and London, D. Appleton & Co, 1921. 343 pages. 12mo. Cloth, \$2.00.

THE AMERICAN HOSPITAL OF THE TWENTIETH CENTURY. A Treatise on the Development of Medical Institutions, both in Europe and in America, since the beginning of the present century. By Edward F. Stevens, Architect. Revised Edition. New York, The Architectural Record Company, 1921. 380 pages, 480 illustrations and plans. Large 8vo. Cloth, \$7.50.

AN INTRODUCTION TO THE HISTORY OF MEDICINE, with Medical Chronology, Suggestions for Study and Bibliographic Data. By Fielding H. Garrison, A. B., M. D. Third Edition, revised and enlarged. Philadelphia & London, W. B. Saunders Company, 1921. 942 pages, illustrated. 8vo Cloth, \$9.00.

THE SPLEEN AND SOME OF ITS DISEASES. By Sir Berkeley Moynihan. Philadelphia, W. B. Saunders Company, 1921. 129 pages, 13 full-page diagrams. 8vo. Cloth, \$5.00.

A TREATISE ON DISEASES OF THE SKIN. By Henry W. Stelwagon, M. D., Ph. D. Ninth Edition, with the assistance of Henry Kennedy

Gaskill, M. D. Philadelphia & London, W. B. Saunders Company, 1921. 1313 pages, 401 text-illustrations and 29 colored and half-tone plates. 8vo. Cloth, \$10.00.

A TEXTBOOK OF SURGICAL ANATOMY. By William Francis Campbell, A. B., M. D., F. A. C. S. Third Edition, revised. Philadelphia and London, W. B. Saunders, Company., 1921. 681 Pages, 325 illustrations. 8vo. Cloth, \$6.00.

ELEMENTS OF FOLK PSYCHOLOGY. Outlines of a Psychological History of the Development of Mankind. By Wilhelm Wundt. Authorized translation by Edward Leroy Schaub, Ph. D. (Revised Edition). London, George Allen & Unwin, Ltd., New York, The Macmillan Co., 1921. 532 pages. 8vo. Cloth, \$6.00.

A LABORATORY COURSE IN SERUM STUDY, BACTERIOLOGY 208. By Hans Zinsser, M. D., J. G. HOPKINS, M. D. Reuben Ottenberg, M. D., Second Edition, revised. New York, The Macmillan Co., 1921. 184 pages, interleaved, 8vo.

A LABORATORY HANDBOOK FOR DIETETICS. By Mary Swartz Rose, Ph. D. Revised Edition. New York, The Macmillan Company, 1921. 156 pages. 8vo. Cloth, \$2.10.

BENIGN STUPORS. A Study of a New Manic-Depressive Reaction Type. By August Hoch, M. D. New York, The Macmillan Company, 1921. 284 pages. 12mo. Cloth, \$2.50.

THE CONTROL OF SEX INFECTIONS. By J. Bayard Clark, M. D. New York, The Macmillan Company, 1921. 132 pages. 12mo.

